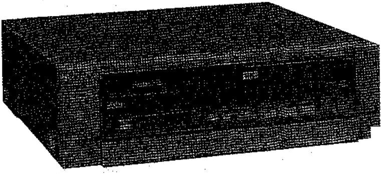
EVO-9500A

SERVICE MANUAL

US Model
Canadian Model



SPECIFICATIONS

System

Video recording system	Rotary two-head flying erase head Herical scanning FM system
Audio recording system	Standard: Rotary head FM system (monaural) PCM: PCM system (2 channels)
Video signal	NTSC color, EIA standards
Usable cassettes	8 mm format video cassettes
Tape speed	Approx. 1.43cm/sec. (SP mode)
Maximum recording/playback time	2 hours (SP mode) (with Sony P6-120MP 8mm video cassette)
Fast-forward and rewind time	Approx. 3 min. (with Sony P6-90MP 8mm video cassette)

Inputs and Outputs

Video input	VIDEO IN (1) BNC connector Input signal: 1 Vp-p, 75 ohms, unbalanced, sync negative
S VIDEO input	S VIDEO IN (1) 4-pin mini-DIN Luminance signal: 1 Vp-p, 75 ohms, unbalanced, sync negative Chrominance signal: 0.286 Vp-p, 75 ohms, unbalanced
Video output	VIDEO OUT, BNC connector (1), phono jack (1) Output signal: 1 Vp-p, 75 ohms, unbalanced, sync negative
S VIDEO output	S VIDEO OUT (1) 4-pin, mini-DIN Luminance signal: 1 Vp-p, 75 ohms, unbalanced, sync negative Chrominance signal: 0.286 Vp-p, 75 ohms, unbalanced
Horizontal resolution	Standard system: 240 lines (SP color mode) Hi8 system: 400 lines
Video S/N	More than 45 dB (Color mode)
Audio input	AUDIO IN (2) phono jack Input level: −7.5 dBs (0dBs=0.775 Vrms) Input impedance: more than 47 kilohms
Audio output	AUDIO OUT Stereo output: phono jack (2) Standard impedance: −7.5 dBs at load impedance 47 kilohms monaural output: phono jack (1) Standard impedance: −5 dBs at load impedance 47 kilohms Output impedance: less than 2.2 kilohms

— **Continued on next page** —

Hi8 VIDEO CASSETTE RECORDER

SONY

MICROFILM

Frequency response	Standard track: 30Hz-15kHz PCM track: 20Hz-15kHz
Audio S/N	More than 60 dB (SP mode)
Microphone input (monaural)	MIC (1) minijack −65 dBs, for low-impedance microphone
Headphones output	HEADPHONES (1) stereo minijack for headphones
External sync input	VIDEO IN (BNC connector, used also as a video input) Input signal: 1 Vp-p, video signal
CONTROL P input	Phono jack (1) Input impedance: 47 kilohms
CONTROL P output	Phono jack (1)

General

Power requirement	AC 120V, 60Hz
AC outlet	Total 400 W max. (unswitched)
Power consumption	25 W
Operating temperature	5°C to 40°C (41°F to 104°F)
Storage temperature	−20°C to +60°C (−4°F to +140°F)
Dimensions	Approx. 355 × 116 × 387 mm (w/h/d) (14 × 4⅝ × 15¼ inches)
Weight	Approx. 6.5 kg (14 lb 5 oz)
Supplied accessory	Cleaning cassette (1)

Accessories not supplied

Remote Commander RM-S52 (wireless)
Remote control unit RM-S18 (wired)
Connecting cables
RFU adaptor RFU-89UCKA

Design and specifications are subject to change without notice.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
6. Check the B+ voltage to see it is at the values specified.
7. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

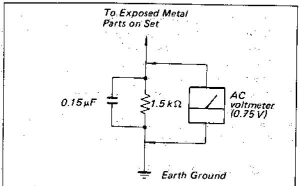


Fig. A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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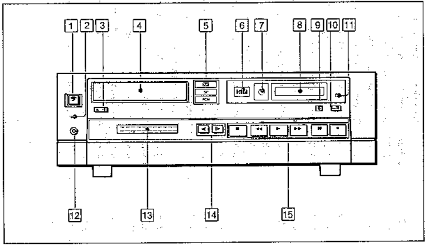
SECTION 1
GENERAL

This section is extracted from instruction manual.

Location and Function of Parts and Controls

Refer to the pages indicated in ○ for details.

Front Panel



1 **POWER ON/OFF switch and indicator**
Press to turn on the power. The indicator lights up when the power is on.

2 **STANDBY indicator**
Lights up when the power cord is connected to a wall outlet, and goes out when the power of the VCR is on.

3 **≜ EJECT button**
Press to remove the cassette.

4 **Cassette compartment**

5 **Indicators**

⊡	Lights up when a cassette is in the cassette compartment.
SP.	Lights up when the power is on, and goes out when the tape speed is in the LP (long play) mode or no signal is recorded on the tape.
PCM	Lights up when PCM sound is recorded on the tape or during PCM audio recording. ⑱ Also lights up when PCM sound is played back.

6 **Hi8 indicator**
Lights up when the power is on, and goes out when a tape recorded in the standard system is inserted or when the system used in recording cannot be determined.

7 **Remote sensor ㉞**
Point the RM-S52 Remote Commander (not supplied) here.

8 **Time counter display**
Displays the item selected by the TC COUNTER selector.

9 **TC (time code) COUNTER (reel counter) selector ⑱**

TC	Displays 8mm time code. " --:--:--:-- " will be displayed when no time code is recorded on the tape.
COUNTER	Displays the counter which increases as the tape advances. The display is reset to " 0000 " when you newly insert a cassette or when you unplug and plug in the power cord.

10 **RESET (counter reset) button ⑱**
Press to reset the counter to " 0000 ".

11 **TIMER REC indicator**
Lights up when the TIMER switch is set to REC with the power cord connected to a wall outlet and shows that the recording/playback cannot be operated.
It goes out when you unplug the power cord from a wall outlet.

12 **HEADPHONES jack** (stereo minijack)

13 **Audio level meters**

Recording	Audio recording level of the sound which is selected with the AUDIO OUTPUT SELECT switch (inside the front panel) is shown. **When AUDIO OUTPUT SELECT is set to STD or MIX** The monaural sound being recorded is displayed on both channels even when one of the REC LEVEL controls (L or R) is set to " 0 ".
Playback	Audio playback level of the sound which is selected with the AUDIO OUTPUT SELECT switch is shown.

14 **SLOW button**
Press for a slow-motion playback.

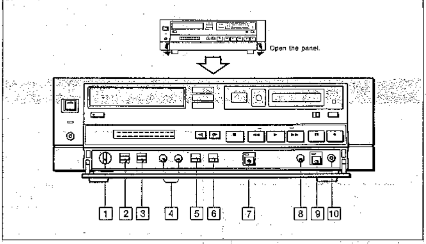
◂I	Rewinds the picture at 1/5 normal speed. (Enters the stop mode approx. 40 seconds after to prevent damage to the tape.)
I▸	Advances the picture at 1/5 normal speed.

15 **Tape transport buttons and indicators**
The indicator lights up during the corresponding operation.

■	STOP (no indicator)
◀◀	REW (rewind)
▶	PLAY (playback)
▶▶	FF (fast-forward)
II	PAUSE
●	REC (recording)

Location and Function of Parts and Controls

Inside the Front Panel



1. **PHONE LEVEL (headphone level) control**

2. **AUDIO OUTPUT SELECT switch ⑲**
Select the sound to be monitored through headphones or the speaker of a video monitor.
PCM: To hear the PCM sound only.
MIX : To hear the PCM and standard sound mixed.
STD : To hear the standard sound only. (monaural)

3. **TIMER switch**
Set to REC or PLAY to start/stop recording or playback at a specified time when an external timer is connected.
Normally set to OFF.

4. **REC LEVEL controls**

5. **AUTO REPEAT switch**
Set to ON to repeat playback automatically from the beginning of the tape to the end of a recording.
Normally set to OFF.

6. **INPUT SELECT switch**
Select the ordinary video input signal or the S video input signal.

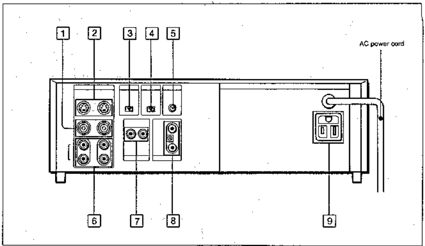
7. **8 mm TIME CODE WRITE button and indicator**
Press to record the time code on the tape. The indicator blinks during preroll prior to time code recording. During time code recording, the indicator on the button lights.

8. **SLOW ADJ (slow adjust) control**
Turn to adjust the picture if streaks appear during the slow-motion playback.

9. **AUDIO DUB (audio dubbing) button and indicator**
Press to record additional music or narration.

10. **MIC (microphone) jack** (minijack)
Connect a microphone with a miniplug.

Rear Panel



1. **VIDEO IN/OUT (input/output) connectors** (BNC type)

2. **S VIDEO IN/OUT (input/output) connectors** (4-pin mini-DIN)
Accept or supply S video signals. Use a commercially available S VIDEO connecting cable.

3. **SYNC INT/EXT (sync signal internal/external) selector**
Set to EXT to play back in synchronization with the external device. Normally set to INT.

4. **EDIT switch**

5. **STILL ADJ (still adjust) control**
Turn to adjust a still picture.

6. **AUDIO IN/OUT (input/output) jacks** (phono type, stereo)

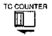
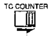
7. **CONTROL P IN/OUT (input/output) jacks** (phono type) ㉚, (55)
Connect the RM-S18 wired remote control unit (not supplied). Also using the CONTROL P connection, you can operate a number of EVO-9500A units simultaneously.

8. **VIDEO/AUDIO OUT (output) jacks** (phono type)
Supply the video and audio (monaural) output signals. To connect a TV without video and audio inputs, use the commercially available RFU-89UCKA RFU adaptor.

9. **AC OUT connectors**
These supply power to other equipment whose power consumption is 400W or less in total, regardless whether the POWER switch of this VCR is ON or OFF.
Do not connect to equipment whose power consumption is over 400W.

Using the Tape Counter

You can switch the 8mm time code display and the counter display using the TC COUNTER selector as follows:

Item to be displayed	TC COUNTER
8mm time code recorded on the tape	
Counter for tape travel	

To reset the counter display to "0000"

Press the RESET button.
It is useful to reset the counter at the beginning of the tape, and write down the content and the counter reading.

What is the "--:--:--:--" indication?

It will be displayed when you set the TC COUNTER selector to TC in the stop, fast-forward, or rewind mode, or while playing back a tape without the 8mm time code.

What is a Time Code ?

Each scene recorded on a tape can be numbered in units of frame (1/30 second) by the hour, minute, second and frame.
This is a time code.
The time code is automatically recorded on a tape during recording with this VCR, or it can be recorded separately by using the 8 mm TIME CODE WRITE button.
You can use the recorded time code to locate the playback starting or ending points.

Important
The time code used in this unit is the special 8 mm format time code for institutional products.

- This unit can read the time code recorded with the EVO-720, EVO-9100, EVO-9700, EVO-9800 and EVV-9000.
- This unit cannot read the RC time code (rewritable consumer time code). If you want to record the time code on your tape that this unit can read, use the TIME CODE WRITE button on this unit.
  In this case, however, the RC time code that was recorded on the tape will be erased.

To record the 8 mm time code
See page 24 and 25.

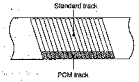
Monitoring the Picture of a Video Camera

Connect a video camera to the VIDEO (or S VIDEO) IN connector of the VCR and make the appropriate settings for the picture of the camera.
The picture is automatically switched to that of the camera when the VCR enters the rewind or stop mode.
This is useful together with the AUTO REPEAT function (page 20) when showing a "how to" tape in a public place, for example.

Playing Back an Audio Dubbed Tape

You can select the monitor sound recorded on the PCM track of the tape, such as narration or music, with the AUDIO OUTPUT SELECT switch.
For recording, see "Audio Dubbing" on page 32.

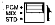
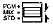
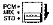
Audio recording pattern on a video tape



Playing back a stereo-recorded tape

Set the AUDIO OUTPUT SELECT switch to PCM.
You can monitor the stereo sound recorded on the PCM track of the tape.
When monitoring the monaural sound, set the switch to STD.

To select the monitor sound

Track to be played back	AUDIO OUTPUT SELECT
PCM only	
PCM and standard, mixed	
Standard only	

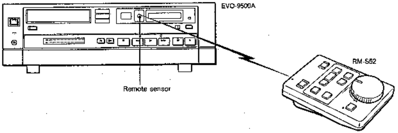
When a TV without video/audio inputs is connected
Connect your stereo system to this VCR to monitor the stereo sound.

If the sound is not heard or the PCM indicator blinks
When you set the AUDIO OUTPUT SELECT switch to PCM while playing back a tape recorded on a video camera recorder or a video cassette deck without the PCM function, the sound may not be heard or heard only intermittently, or the PCM indicator may blink. If this happens, set the AUDIO OUTPUT SELECT switch to STD.
The PCM indicator may still blink, but it does not affect the sound.

Remote Control Operation

Using the RM-S52 wireless Remote Commander (not supplied)

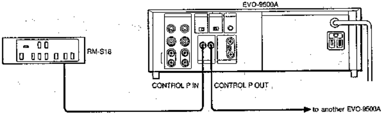
You can control the EVO-9500A from a distance.


EVO-9500A
RM-S52
Remote sensor

For details, refer to the instruction manual of the RM-S52.

Using the RM-S18 wired remote control unit (not supplied)

You can control up to 50 EVO-9500As at the same time.


EVO-9500A
RM-S18
CONTROL P IN
CONTROL P OUT
to another EVO-9500A

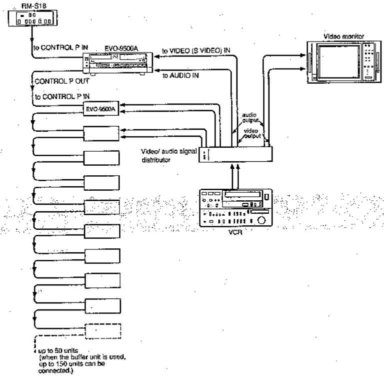
For details, refer to the instruction manual of the RM-S18.

Notes

When the RM-S18 is connected to the CONTROL P IN jack of the VCR, you can no longer control the VCR with the RM-S52.

Tape Duplication System

You can make a tape duplication system by connecting a number of EVO-9500As with the RM-S18 wired remote control unit (not supplied) as illustrated.
Using this system, you can produce a number of recorded tapes at a time.


RM-S18
to CONTROL P IN
EVO-9500A
to VIDEO (S VIDEO) IN
to AUDIO IN
CONTROL P OUT
to CONTROL P IN
EVO-9500A
Video monitor
audio output
video output
Video/ audio signal distributor
VCR
up to 50 units
(when the buffer unit is used, up to 150 units can be connected.)

For detailed connection and operation, consult your Sony dealer.

Hi8 (High Eight) Video System

Features of the Hi8 Video System

The 8 mm video system employs a high-grade metal powder tape which allows the video cassette recorder to record a large amount of information and enhance picture quality. The Hi8 video system has been developed, taking advantage of the 8 mm video system. The main characteristics of the Hi8 are as follows:

Super High Quality Picture

The information capacity is a key element for picture improvement. It can be increased by shifting up to the FM carrier frequency range. In the Hi8 video system, the FM carrier frequency range of the luminance signal is shifted up to 5.7—7.7 MHz. This is higher than the 4.2—5.4 MHz range of the standard 8 mm video system. Thanks to this, the horizontal resolution is improved to more than 400 lines.

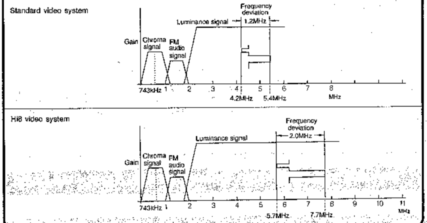
Use of High-Grade Tape Corresponding to the Hi8 Video System

Metal evaporated tape is ideal for video systems because it has large magnetic energy that allows for high-density recording. The Hi8 video cassette recorder uses such high-grade tape for the Hi8 video system, covering a wide frequency range, to achieve a high-quality video signal for recording/playback.

S VIDEO (Separated Luminance/Chrominance Signal) Input/Output Connectors

Conventionally, video equipment uses the composite video signal containing the luminance (Y) signal and the chrominance (C) signal mixed. The composite video signal is liable to produce interference resulting in picture quality loss. On the contrary, the S VIDEO connector transmits or receives the video signal separated into the luminance signal and the chrominance signal. Flickers and color blur in the picture are minimized with the separated video signal, and sharpness is enhanced to such an extent that hair-line stripes are clearly visible. The S VIDEO connector also assures an excellent editing quality with minimum picture quality loss.

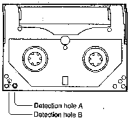
Difference In Frequency Allocation



Hi8 Cassette Tape

The newly developed Hi8 ME and Hi8 MP cassette tapes with high durability feature characteristics best suiting Hi8 video system recording/playback. Hi8 cassettes have a detection hole on the bottom of the cassette shell to automatically set Hi8 VCRs in the Hi8 video system mode for recording.

Cassette	Detection hole A	Detection hole B
Hi8ME Hi8	open	closed
Hi8MP Hi8	closed	open
Standard MP 8	closed	closed



Automatic Switching of the System According to the Cassette Tape

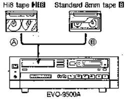
The VCR switches the recording/playback system (Hi8 system or standard system) automatically according to the cassette tape being used.

Recording

When using a Hi8 cassette tape for recording, the VCR senses the detection holes on the cassette shell (see above), and automatically performs the recording in the SP (standard play) mode of the Hi8 video system. When using a standard 8mm tape, the recording is performed using the standard 8mm video system.

Ⓐ Recording in the Hi8 video system

Ⓑ Recording in the standard 8 mm video system



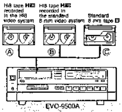
Playback

In playback, the VCR can detect the system mode used in recording by verifying the recorded signal, and plays back the tape in the appropriate mode.

Ⓐ Playback in the Hi8 video system

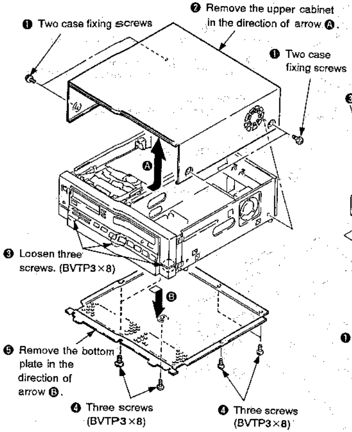
Ⓑ Playback in the standard 8 mm video system

Ⓒ Playback in the standard 8 mm video system

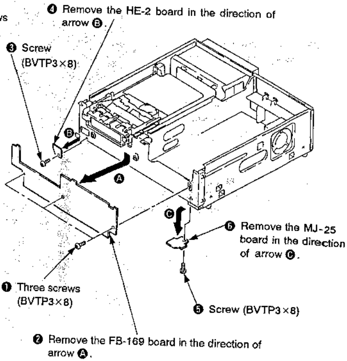

Hi8 tape Hi8 recorded in the Hi8 video system
Hi8 tape Hi8 recorded in the standard 8 mm video system
Standard 8 mm tape 8
Ⓐ
Ⓑ
Ⓒ
EVO-9500A

SECTION 2
DISASSEMBLY

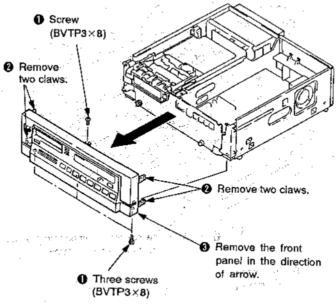
2-1. REMOVAL OF CABINET


❷ Remove the upper cabinet in the direction of arrow Ⓐ.
❶ Two case fixing screws
❶ Two case fixing screws
Ⓐ
❸ Loosen three screws. (BVTP3×8)
Ⓑ
❺ Remove the bottom plate in the direction of arrow Ⓑ.
❹ Three screws (BVTP3×8)
❹ Three screws (BVTP3×8)

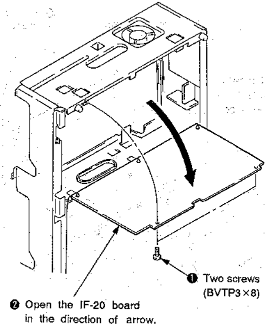
2-3. REMOVAL OF FB-169, HE-2 AND MJ-25 BOARDS


❹ Remove the HE-2 board in the direction of arrow Ⓑ.
❸ Screw (BVTP3×8)
Ⓑ
Ⓐ
Ⓒ
❻ Remove the MJ-25 board in the direction of arrow Ⓒ.
❶ Three screws (BVTP3×8)
❺ Screw (BVTP3×8)
❷ Remove the FB-169 board in the direction of arrow Ⓐ.

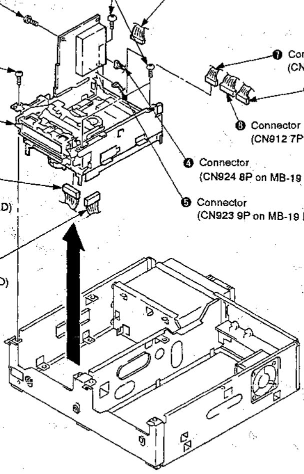
2-2. REMOVAL OF FRONT PANEL


❶ Screw (BVTP3×8)
❷ Remove two claws.
❷ Remove two claws.
❸ Remove the front panel in the direction of arrow.
❶ Three screws (BVTP3×8)

2-4. OPENING OF IF-20 BOARD


❶ Two screws (BVTP3×8)
❷ Open the IF-20 board in the direction of arrow.

2-5. REMOVAL OF MECHANISM BLOCK



❸ Remove the screw (BVTP3×8) and open the MB-19 board.

❿ Three screws
(BVTP3×8)

❻ Connector
(CN907 12P on SE-10 BOARD)

⓫ Screw
(BVTP3 ×8)

❼ Connector
(CN911 5P on HK-4 BOARD)

❾ Connector
(CN914 6P on HK-4 BOARD)

⓬ Remove the mechanism block in the direction of arrow.

❽ Connector
(CN912 7P on HK-4 BOARD)

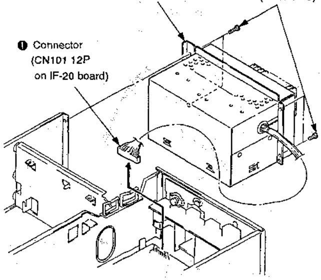
❹ Connector
(CN924 8P on MB-19 BOARD)

❶ Connector
(CN902 12P
on SE-10 BOARD)

❺ Connector
(CN923 9P on MB-19 BOARD)

❷ Connector
(CN903 13P
on SE-10 BOARD)

2-6. REMOVAL OF POWER SUPPLY BLOCK

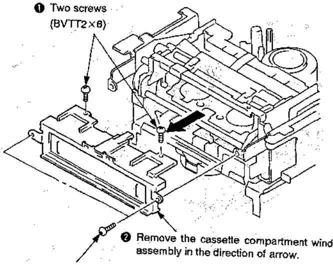


❸ Power supply block

❷ Four screws
(BVTP3×8)

❶ Connector
(CN101 12P
on IF-20 board)

2-7. REMOVAL OF CASSETTE COMPARTMENT WINDOW ASSEMBLY

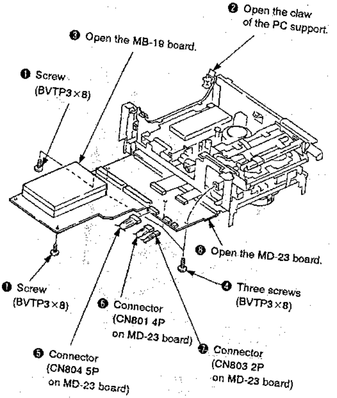


❶ Two screws
(BVTT2×6)

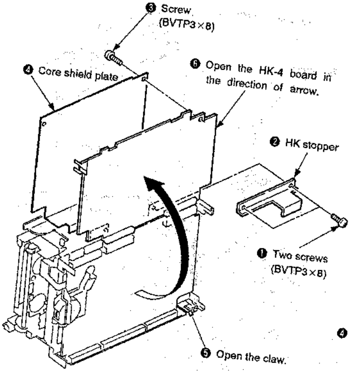
❷ Remove the cassette compartment window assembly in the direction of arrow.

❶ Two screws
(BVTT2×6)

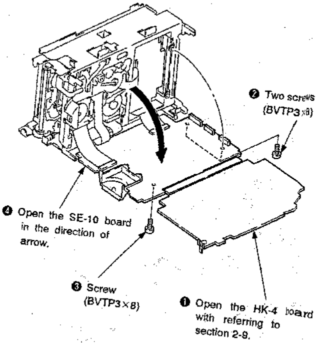
2-8. OPENING OF MB-19 AND MD-23 BOARDS


❷ Open the claw of the PC support.
❸ Open the MB-19 board.
❶ Screw (BVTP3×8)
❶ Screw (BVTP3×8)
❽ Open the MD-23 board.
❹ Three screws (BVTP3×8)
❻ Connector (CN801 4P on MD-23 board)
❺ Connector (CN804 5P on MD-23 board)
❼ Connector (CN803 2P on MD-23 board)

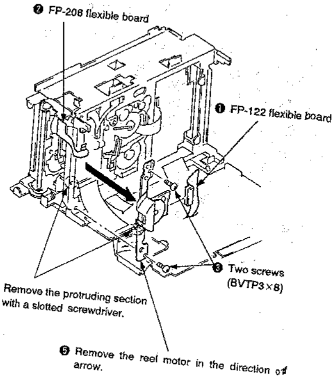
2-9. OPENING OF HK-4 BOARD


❸ Screw (BVTP3×8)
❹ Core shield plate
❻ Open the HK-4 board in the direction of arrow.
❷ HK stopper
❶ Two screws (BVTP3×8)
❺ Open the claw.

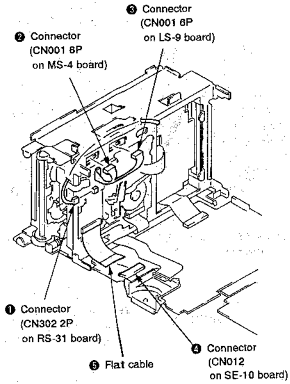
2-10. OPENING OF SE-10 BOARD


❷ Two screws (BVTP3×8)
❹ Open the SE-10 board in the direction of arrow.
❸ Screw (BVTP3×8)
❶ Open the HK-4 board with referring to section 2-9.

2-11. REMOVAL OF REEL MOTOR


❷ FP-206 flexible board
❶ FP-122 flexible board
❸ Two screws (BVTP3×8)
❹ Remove the protruding section with a slotted screwdriver.
❺ Remove the reel motor in the direction of arrow.

2-12. REMOVAL OF RS-31 BOARD



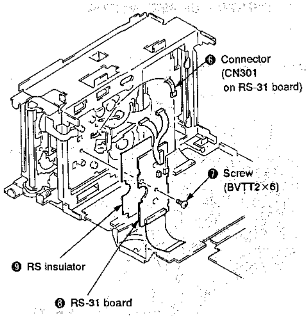
❶ Connector (CN302 2P on RS-31 board)

❷ Connector (CN001 6P on MS-4 board)

❸ Connector (CN001 6P on LS-9 board)

❹ Connector (CN012 on SE-10 board)

❺ Flat cable



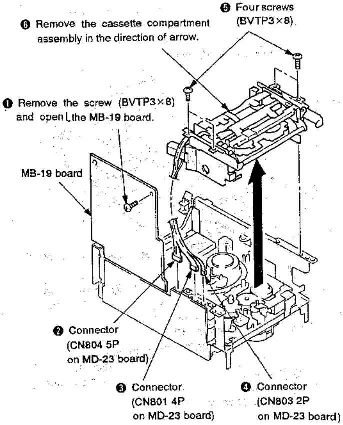
❻ Connector (CN301 on RS-31 board)

❼ Screw (BVTT2×6)

❽ RS-31 board

❾ RS insulator

2-13. REMOVAL CASSETTE COMPARTMENT ASSEMBLY



❶ Remove the screw (BVTP3×8) and open the MB-19 board.

MB-19 board

❷ Connector (CN804 5P on MD-23 board)

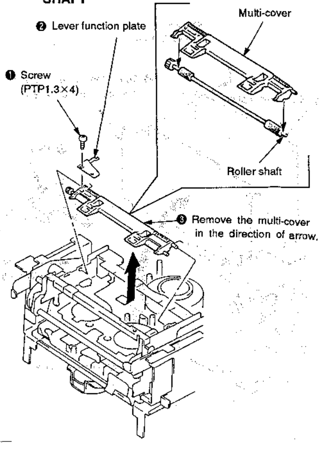
❸ Connector (CN801 4P on MD-23 board)

❹ Connector (CN803 2P on MD-23 board)

❺ Four screws (BVTP3×8)

❻ Remove the cassette compartment assembly in the direction of arrow.

2-14. REMOVAL OF MULTI-COVER AND ROLLER SHAFT

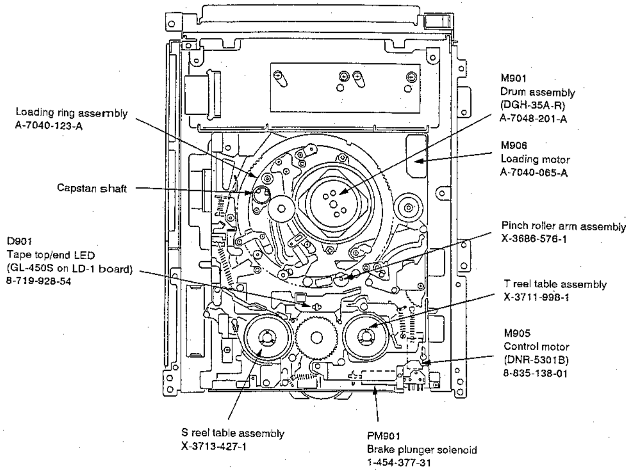


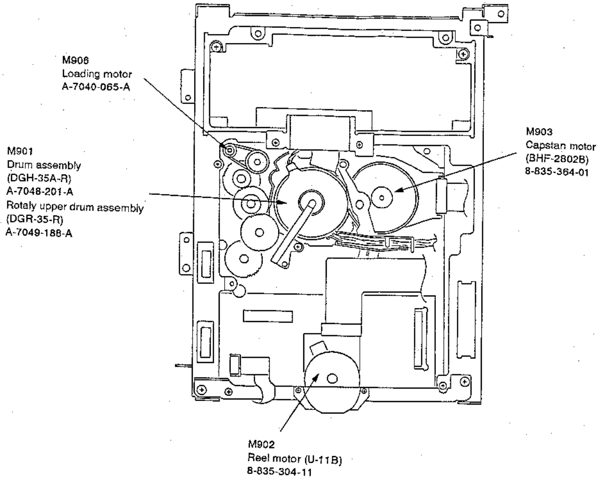
❶ Screw (PTP1.3×4)

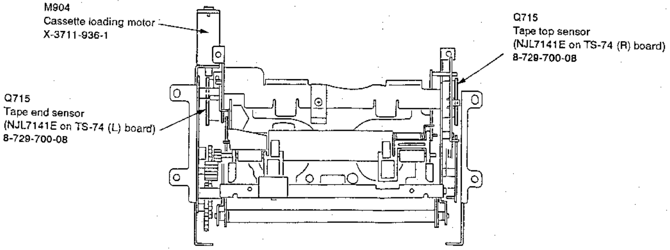
❷ Lever function plate

❸ Remove the multi-cover in the direction of arrow.

2-15. INTERNAL VIEW

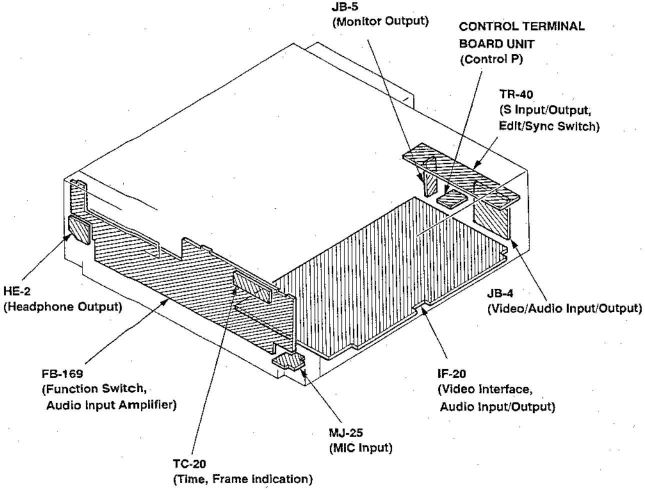

M901
Drum assembly
(DGH-35A-R)
A-7048-201-A
Loading ring assembly
A-7040-123-A
M906
Loading motor
A-7040-065-A
Capstan shaft
Pinch roller arm assembly
X-3686-576-1
D901
Tape top/end LED
(GL-450S on LD-1 board)
8-719-928-54
T reel table assembly
X-3711-998-1
M905
Control motor
(DNR-5301B)
8-835-138-01
S reel table assembly
X-3713-427-1
PM901
Brake plunger solenoid
1-454-377-31

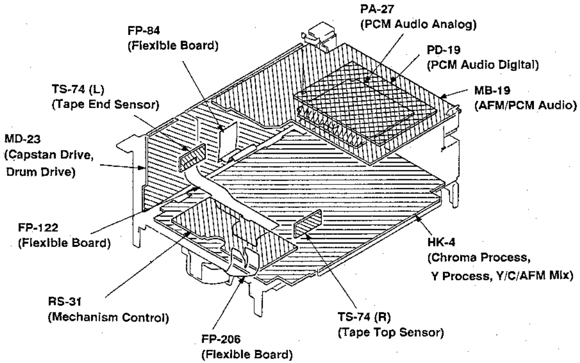

M906
Loading motor
A-7040-065-A
M903
Capstan motor
(BHF-2802B)
8-835-364-01
M901
Drum assembly
(DGH-35A-R)
A-7048-201-A
Rotaly upper drum assembly
(DGR-35-R)
A-7049-188-A
M902
Reel motor (U-11B)
8-835-304-11

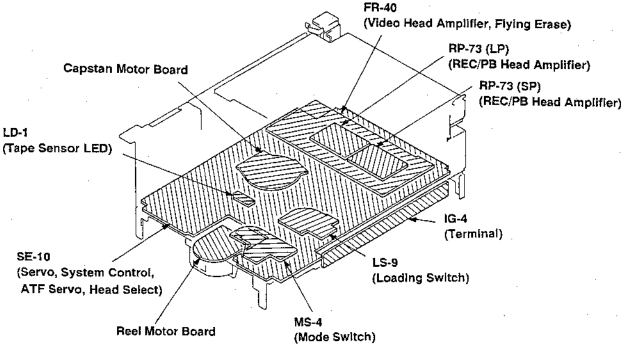

M904
Cassette loading motor
X-3711-936-1
Q715
Tape top sensor
(NJL7141E on TS-74 (R) board)
8-729-700-08
Q715
Tape end sensor
(NJL7141E on TS-74 (L) board)
8-729-700-08

SECTION 3
DIAGRAM

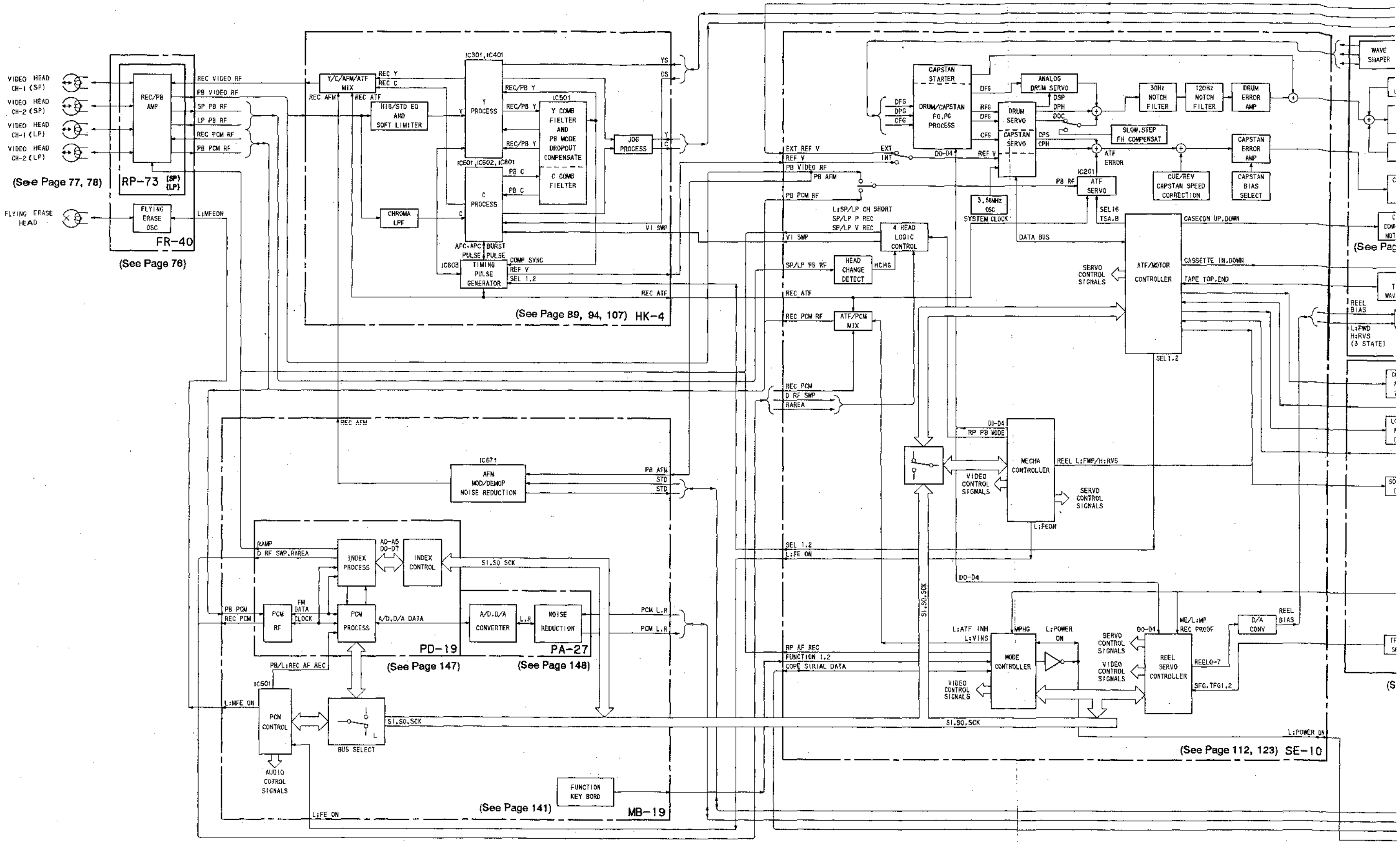
3-1. CIRCUIT BOARDS LOCATION


JB-5
(Monitor Output)
CONTROL TERMINAL
BOARD UNIT
(Control P)
TR-40
(S Input/Output,
Edit/Sync Switch)
HE-2
(Headphone Output)
JB-4
(Video/Audio Input/Output)
FB-169
(Function Switch,
Audio Input Amplifier)
IF-20
(Video Interface,
Audio Input/Output)
MJ-25
(MIC Input)
TC-20
(Time, Frame Indication)

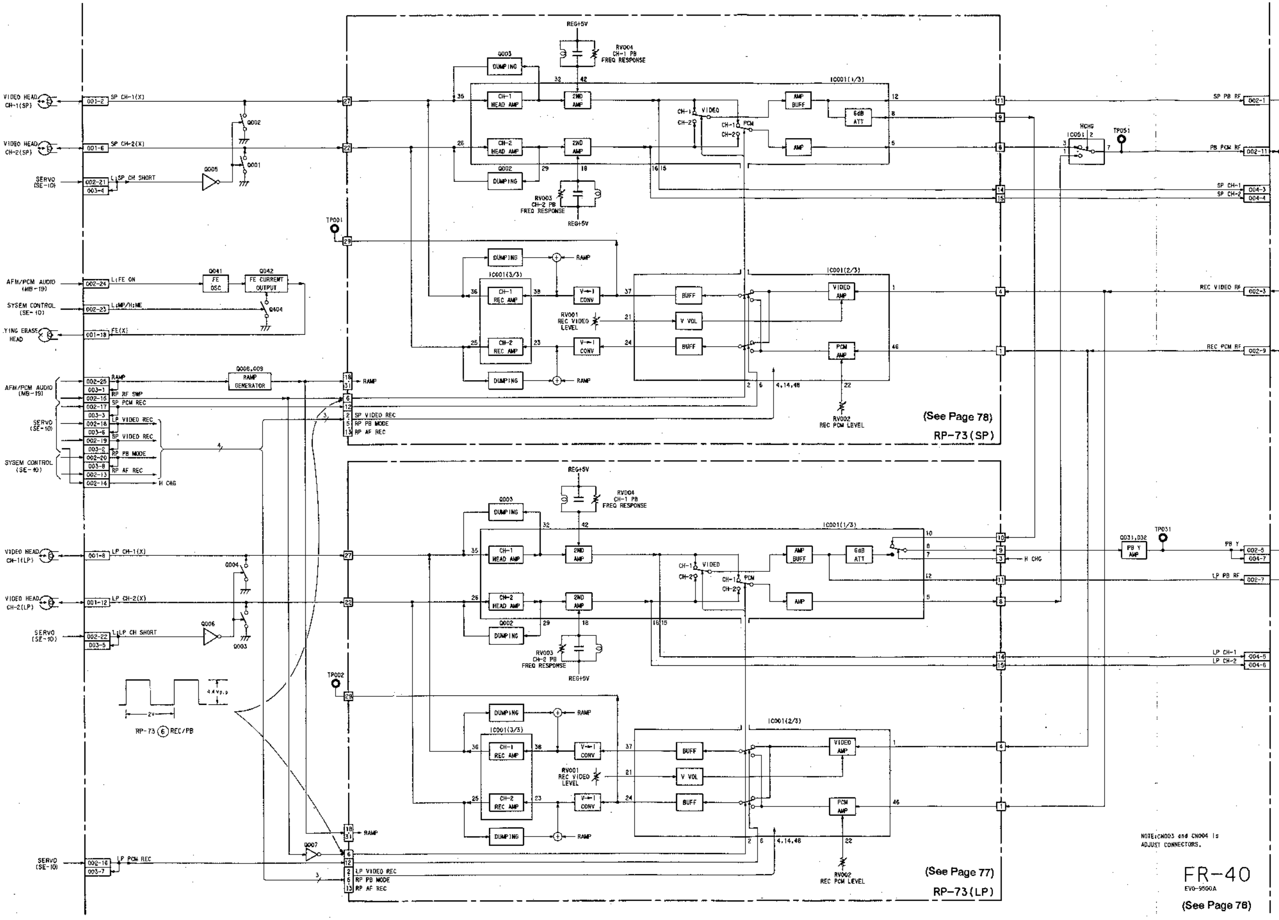

PA-27
(PCM Audio Analog)
FP-84
(Flexible Board)
PD-19
(PCM Audio Digital)
TS-74 (L)
(Tape End Sensor)
MB-19
(AFM/PCM Audio)
MD-23
(Capstan Drive,
Drum Drive)
FP-122
(Flexible Board)
HK-4
(Chroma Process,
Y Process, Y/C/AFM Mix)
RS-31
(Mechanism Control)
TS-74 (R)
(Tape Top Sensor)
FP-206
(Flexible Board)


FR-40
(Video Head Amplifier, Flying Erase)
RP-73 (LP)
(REC/PB Head Amplifier)
Capstan Motor Board
RP-73 (SP)
(REC/PB Head Amplifier)
LD-1
(Tape Sensor LED)
IG-4
(Terminal)
SE-10
(Servo, System Control,
ATF Servo, Head Select)
LS-9
(Loading Switch)
MS-4
(Mode Switch)
Reel Motor Board

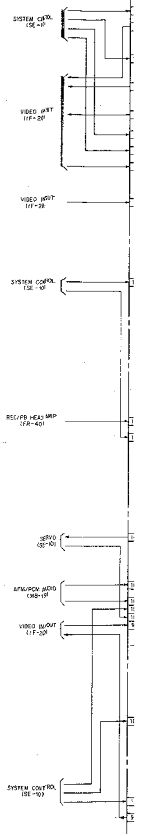
3-2. OVERALL BLOCK DIAGRAM


VIDEO HEAD CH-1 (SP)
VIDEO HEAD CH-2 (SP)
VIDEO HEAD CH-1 (LP)
VIDEO HEAD CH-2 (LP)
REC/PB AMP
RP-73 (SP) (LP)
(See Page 77, 78)
FLYING ERASE HEAD
FLYING ERASE OSC
FR-40
(See Page 76)
REC VIDEO RF
PB VIDEO RF
SP PB RF
LP PB RF
REC PCM RF
PB PCM RF
L:MFEON
Y/C/AFM/ATF MIX
REC Y
REC C
REC AFM
REC ATF
H18/STD EQ AND SOFT LIMITER
IC301,IC401
Y PROCESS
REC/PB Y
IC501
Y COMB FIELTER AND PB MODE DROPOUT COMPENSATE
C COMB FIELTER
IC601,IC602,IC801
PB C
C PROCESS
CHROMA LPF
JOG PROCESS
YS
CS
VI SWP
AFC·APC PULSE
BURST PULSE
IC603
TIMING PULSE GENERATOR
COMP SYNC
REF V
SEL 1,2
REC ATF
(See Page 89, 94, 107) HK-4
REC AFM
IC671
AFM MOD/DEMOP NOISE REDUCTION
PB AFM
STD
RAMP
D RF SWP,RAREA
INDEX PROCESS
A0-A5
D0-D7
INDEX CONTROL
SI,SO SCK
PB PCM
REC PCM
PCM RF
FM DATA
CLOCK
PCM PROCESS
A/D,D/A DATA
A/D,D/A CONVERTER
L,R
NOISE REDUCTION
PCM L,R
PD-19
(See Page 147)
PA-27
(See Page 148)
PB/L:REC AF REC
IC601
L:MFE ON
PCM CONTROL
AUDIO COTROL SIGNALS
BUS SELECT
SI,SO,SCK
FUNCTION KEY BORD
(See Page 141)
MB-19
L:FE ON
EXT REF V
REF V
EXT
INT
PB VIDEO RF
PB AFM
PB PCM RF
L:SP/LP CH SHORT
SP/LP P REC
SP/LP V REC
4 HEAD LOGIC CONTROL
VI SWP
SP/LP PB RF
HEAD CHANGE DETECT
HCHG
REC ATF
REC PCM RF
ATF/PCM MIX
REC PCM
D RF SWP
RAREA
CAPSTAN STARTER
DFG
DPG
CFG
DRUM/CAPSTAN FG,PG PROCESS
D0-D4
ANALOG DRUM SERVO
RFG
DRUM SERVO
CAPSTAN SERVO
DSP
DPH
DOC
CPS
CPH
SLOW,STEP FH COMPENSAT
30Hz NOTCH FILTER
120Hz NOTCH FILTER
DRUM ERROR AMP
ATF ERROR
IC201
ATF SERVO
PB RF
CUE/REV CAPSTAN SPEED CORRECTION
CAPSTAN ERROR AMP
CAPSTAN BIAS SELECT
3.58MHz OSC
SYSTEM CLOCK
SEL16
TSA,B
DATA BUS
SERVO CONTROL SIGNALS
ATF/MOTOR CONTROLLER
CASECON UP,DOWN
CASSETTE IN,DOWN
TAPE TOP,END
SEL1,2
REEL BIAS
L:FWD H:RVS (3 STATE)
WAVE SHAPER
(See Pag
D0-D4
RP PB MODE
MECHA CONTROLLER
REEL L:FWP/H:RVS
VIDEO CONTROL SIGNALS
SERVO CONTROL SIGNALS
L:FEON
SEL 1,2
L:FE ON
SI,SO,SCK
D0-D4
L:ATF INH
L:VINS
MPHG
L:POWER ON
MODE CONTROLLER
SERVO CONTROL SIGNALS
VIDEO CONTROL SIGNALS
VIDEO CONTROL SIGNALS
D0-D4
ME/L:MP
REC PROOF
D/A CONV
REEL BIAS
REEL SERVO CONTROLLER
REEL0-7
SFG,TFG1,2
RP AF REC
FUNCTION 1,2
COPE SIRIAL DATA
SI,SO,SCK
L:POWER ON
(See Page 112, 123) SE-10

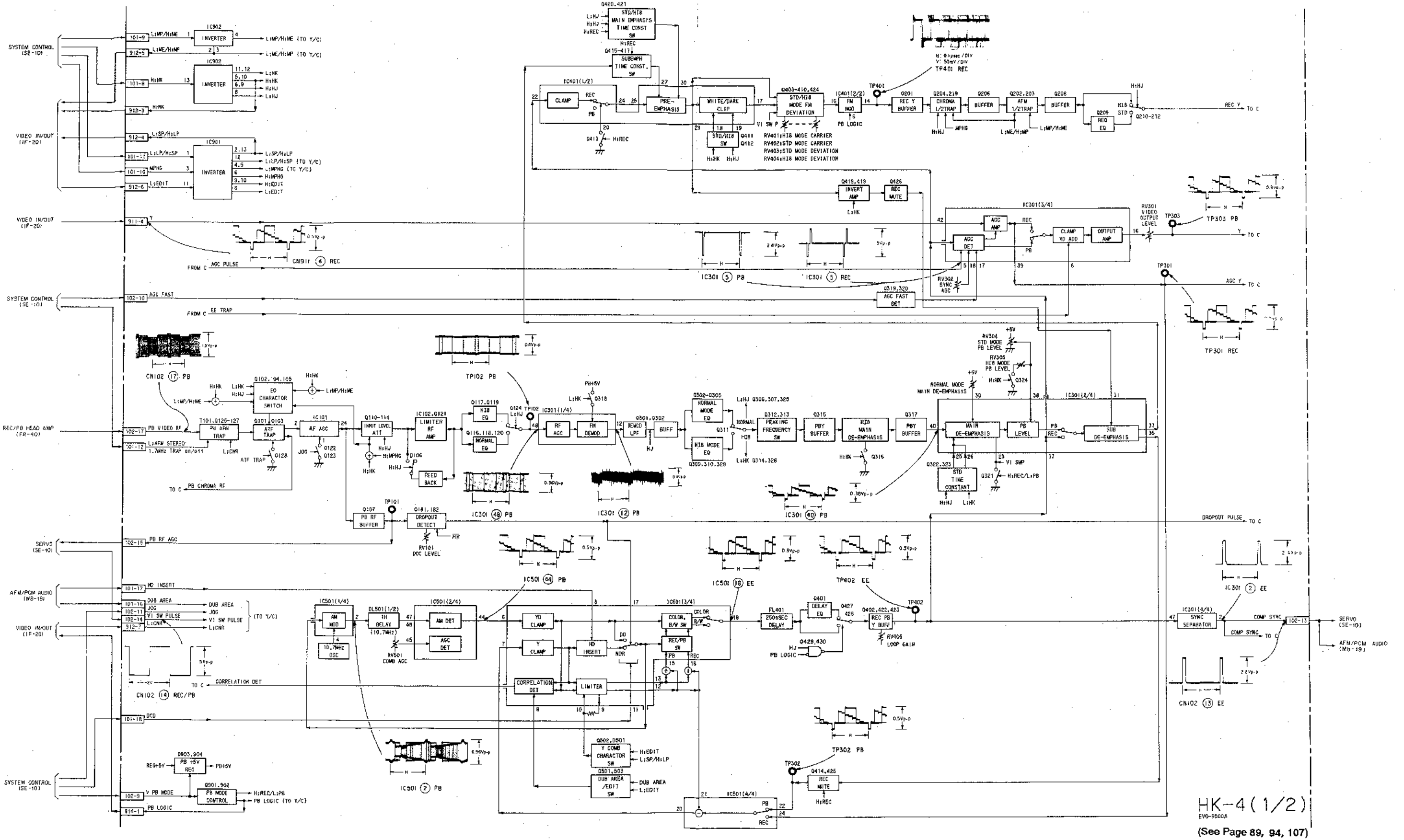
REC/PB HEAD AMP BLOCK DIAGRAM


VIDEO HEAD CH-1(SP)
VIDEO HEAD CH-2(SP)
SERVO (SE-10)
001-2
SP CH-1(X)
001-6
SP CH-2(X)
002-21
003-4
L:SP CH SHORT
Q005
Q002
Q001
AFM/PCM AUDIO (MB-19)
SYSEM CONTROL (SE-10)
FLYING ERASE HEAD
002-24
L:FE ON
002-23
L:MP/H:ME
001-18
FE(X)
Q041
FE OSC
Q042
FE CURRENT OUTPUT
Q404
AFM/PCM AUDIO (MB-19)
SERVO (SE-10)
SYSEM CONTROL (SE-10)
002-25
003-1
002-15
002-17
003-3
002-18
003-6
002-19
003-2
002-20
003-8
002-13
002-14
RAMP
RP RF SWP
SP PCM REC
LP VIDEO REC
SP VIDEO REC
RP PB MODE
RP AF REC
H CHG
Q006,009
RAMP GENERATOR
REG+5V
RV004
CH-1 PB FREQ RESPONSE
Q003
DUMPING
CH-1 HEAD AMP
CH-2 HEAD AMP
2ND AMP
Q002
RV003
CH-2 PB FREQ RESPONSE
IC001(1/3)
CH-1 VIDEO
CH-2
CH-1 PCM
CH-2
AMP BUFF
6dB ATT
AMP
TP001
IC001(3/3)
CH-1 REC AMP
CH-2 REC AMP
V→I CONV
RV001
REC VIDEO LEVEL
BUFF
V VOL
IC001(2/3)
VIDEO AMP
PCM AMP
RV002
REC PCM LEVEL
4,14,48
SP VIDEO REC
RP PB MODE
RP AF REC
(See Page 78)
RP-73(SP)
HCHG
IC051
TP051
SP PB RF
002-1
PB PCM RF
002-11
AFM/PCM AUDIO (MB-19)
SP CH-1
SP CH-2
004-3
004-4
REC VIDEO RF
002-3
CHROMA PROCESS (HK-4)
REC PCM RF
002-9
AFM/PCM AUDIO (SE-10)
SERVO (SE-10)
AFM/PCM AUDIO (MB-19)
Y PROCESS (HK-4)
Q031,032
PB Y AMP
TP031
PB Y
002-5
004-7
LP PB RF
002-7
LP CH-1
LP CH-2
004-5
004-6
VIDEO HEAD CH-1(LP)
VIDEO HEAD CH-2(LP)
SERVO (SE-10)
001-8
LP CH-1(X)
001-12
LP CH-2(X)
002-22
003-5
L:LP CH SHORT
Q004
Q006
Q003
4.4Vp-p
2V
RP-73 ⑥ REC/PB
TP002
SERVO (SE-10)
002-16
003-7
LP PCM REC
Q007
LP VIDEO REC
RP PB MODE
RP AF REC
(See Page 77)
RP-73(LP)
NOTE: CN003 and CN004 is ADJUST CONNECTORS.
FR-40
EVO-9500A
(See Page 76)

3-4. PROCESS B


SYSTEM CONTROL (SE-10)
VIDEO INPUT (IF-20)
VIDEO INPUT (IF-20)
SYSTEM CONTROL (SE-10)
REC/PB HEAD AMP (FR-40)
SERVO (SE-10)
AFM/PCM AUDIO (MB-19)
VIDEO IN/OUT (IF-20)
SYSTEM CONTROL (SE-10)

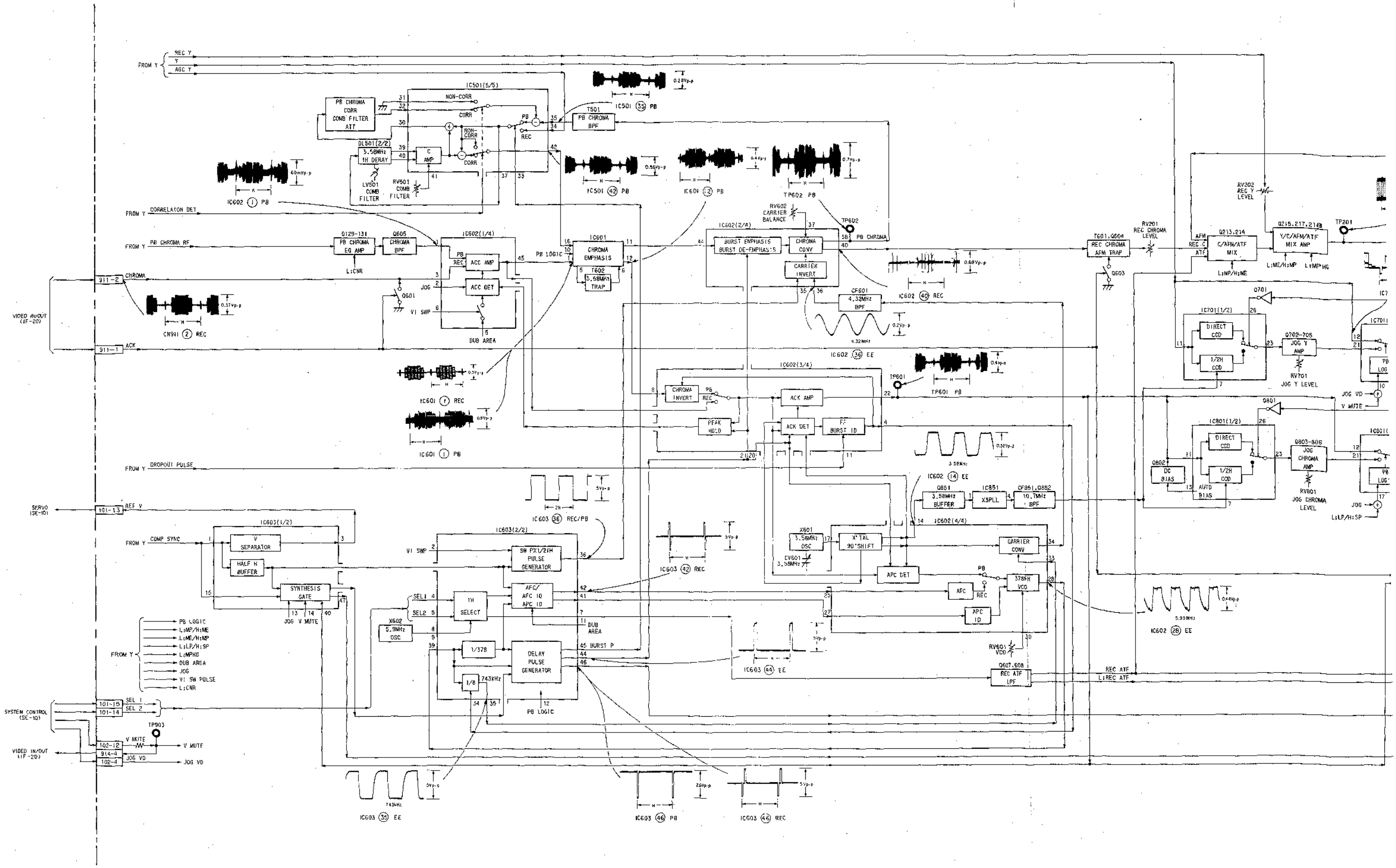
3-4. Y PROCESS BLOCK DIAGRAM


SYSTEM CONTROL (SE-10)
VIDEO IN/OUT (IF-20)
SYSTEM CONTROL (SE-10)
REC/PB HEAD AMP (FR-40)
SERVO (SE-10)
AFM/PCM AUDIO (MB-19)
VIDEO IN/OUT (IF-20)
SYSTEM CONTROL (SE-10)
101-9 L:MP/H:ME
912-5 L:ME/H:MP
101-8 H:HK
912-3 H:HK
912-4 L:SP/H:LP
101-11 L:LP/H:SP
101-10 MPHG
912-6 L:EDIT
911-4 Y
102-10 AGC FAST
102-17 PB VIDEO RF
101-12 L:AFM STEREO 1.7MHz TRAP on/off
102-15 PB RF AGC
101-17 HD INSERT
101-16 DUB AREA
102-11 JOG
102-14 VI SW PULSE
912-7 L:CNR
101-18 DCD
102-9 V PB MODE
914-1 PB LOGIC
IC902 INVERTER
L:MP/H:ME (TO Y/C)
L:ME/H:MP (TO Y/C)
L:HK
H:HK
H:HJ
L:HJ
IC901 INVERTER
L:SP/H:LP
L:LP/H:SP (TO Y/C)
L:MPHG (TO Y/C)
H:MPHG
H:EDIT
L:EDIT
0.5Vp-p
CN911 ④ REC
FROM C AGC PULSE
FROM C EE TRAP
1.5Vp-p
CN102 ⑰ PB
Q102,104,105 EQ CHARACTOR SWITCH
T101,Q125-127 PB AFM TRAP
Q101,Q103 ATF TRAP
ATF TRAP Q128
IC101 RF AGC
JOG Q122 Q123
Q110-114 INPUT LEVEL ATT
IC102,Q121 LIMITER RF AMP
Q106
FEED BACK
Q117,Q119 HI8 EQ
Q116,118,120 NORMAL EQ
Q124 TP102 L:HJ
0.4Vp-p
TP102 PB
IC301(1/4) RF AGC FM DEMOD
PB+5V Q318 L:HK
Q301,Q302 DEMOD LPF BUFF
0.36Vp-p
IC301 ㊽ PB
IC301 ⑫ PB
TO C PB CHROMA RF
Q107 PB RF BUFFER
TP101
Q181,182 DROPOUT DETECT
RV101 DOC LEVEL
Q420,421 STD/HI8 MAIN EMPHASIS TIME CONST SW
Q415-417 SUBEMPH TIME CONST. SW
IC401(1/2) CLAMP
REC PB
Q413 H:REC
PRE-EMPHASIS
WHITE/DARK CLIP
STD/HI8 SW Q411 Q412
Q403-410,424 STD/HI8 MODE FM DEVIATION
VI SW P
RV401:HI8 MODE CARRIER
RV402:STD MODE CARRIER
RV403:STD MODE DEVIATION
RV404:HI8 MODE DEVIATION
IC401(2/2) FM MOD
PB LOGIC
TP401
H: 0.1μsec/DIV
V: 50mV/DIV
TP401 REC
Q201 REC Y BUFFER
Q204,219 CHROMA 1/2TRAP
Q206 BUFFER
Q202,203 AFM 1/2TRAP
Q208 BUFFER
Q209 REQ EQ
HI8 STD Q210-212
REC Y TO C
Q418,419 INVERT AMP
Q426 REC MUTE
IC301(3/4) AGC AMP AGC DET
CLAMP VD ADD
OUTPUT AMP
RV301 VIDEO OUTPUT LEVEL
TP303
0.9Vp-p
TP303 PB
Y TO C
2.4Vp-p
5Vp-p
IC301 ⑤ PB
IC301 ⑤ REC
RV302 SYNC AGC
Q319,320 AGC FAST DET
TP301
AGC Y TO C
TP301 REC
RV304 STD MODE PB LEVEL
RV305 HI8 MODE PB LEVEL
Q324
NORMAL MODE MAIN DE-EMPHASIS
Q302-Q305 NORMAL MODE EQ
HI8 MODE EQ Q309,310,328
Q311 NORMAL HI8
L:HJ Q306,307,325
L:HK Q314,326
Q312,313 PEAKING FREQUENCY SW
Q315 PBY BUFFER
HI8 MAIN DE-EMPHASIS
Q316
Q317 PBY BUFFER
IC301(2/4) MAIN DE-EMPHASIS PB LEVEL SUB DE-EMPHASIS
Q322,323 STD TIME CONSTANT
Q321 VI SWP H:REC/L:PB
IC301 ㊵ PB
DROPOUT PULSE TO C
DUB AREA
JOG
VI SW PULSE
L:CNR
(TO Y/C)
CN102 ⑭ REC/PB
TO C CORRELATION DET
IC501(1/4) AM MOD
10.7MHz OSC
DL501(1/2) 1H DELAY (10.7MHz)
RV501 COMB AGC
IC501(2/4) AM DET AGC DET
IC501 ㊹ PB
IC501(3/4) YD CLAMP Y CLAMP
HD INSERT
DO NDR
CORRELATION DET
LIMITER
COLOR, B/W SW
REC/PB SW
0.56Vp-p
IC501 ② PB
Q502,D501 Y COMB CHARACTOR SW H:EDIT L:SP/H:LP
Q501,503 DUB AREA /EDIT SW
IC501(4/4)
D903,904 PB +5V REG
REG+5V PB+5V
Q901,902 PB MODE CONTROL
H:REC/L:PB
PB LOGIC (TO Y/C)
IC501 ⑱ EE
FL401 250nSEC DELAY
Q401 DELAY EQ
Q427 428
Q429,430
Q402,422,423 REC PB Y BUFF
RV405 LOOP GAIN
TP402
TP402 EE
IC301(4/4) SYNC SEPARATOR
COMP SYNC
COMP SYNC TO C
102-13
SERVO (SE-10)
AFM/PCM AUDIO (MB-19)
IC301 ② EE
2.2Vp-p
CN402 ⑬ EE
TP302 PB
TP302
Q414,425 REC MUTE
H:REC

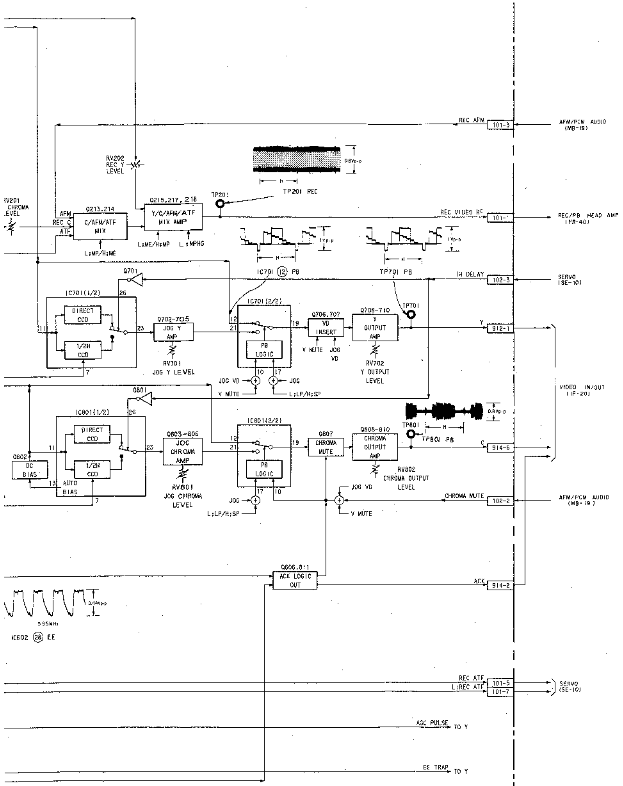
HK-4 (1/2)
EVO-9500A

(See Page 89, 94, 107)

MA PROCESS BLOCK DIAGRAM



FROM Y
REC Y
Y
AGC Y
IC501(5/5)
PB CHROMA CORR COMB FILTER ATT
NON-CORR
CORR
PB
REC
DL501(2/2)
3.58MHz 1H DERAY
C AMP
LV501 COMB FILTER
RV501 COMB FILTER
T501 PB CHROMA BPF
IC501 ㉟ PB
IC501 ㊷ PB
IC601 ⑫ PB
TP602 PB
IC602 ① PB
0.28Vp-p
60mVp-p
0.55Vp-p
0.4Vp-p
0.7Vp-p
CORRELAION DET
PB CHROMA RF
Q129-131 PB CHROMA EQ AMP
Q605 CHROMA BPF
L:CNR
IC602(1/4)
ACC AMP
ACC DET
PB LOGIC
IC601 CHROMA EMPHASIS
T602 3.58MHz TRAP
IC602(2/4)
BURST EMPHASIS BURST DE-EMPHASIS
CHROMA CONV
CARRIER INVERT
RV602 CARRIER BALANCE
TP602 PB CHROMA
CF601 4.32MHz BPF
IC602 ㊵ REC
IC602 ㊱ EE
0.68Vp-p
0.2Vp-p
4.32MHz
VIDEO IN/OUT (IF-20)
911-2
911-1
CHROMA
ACK
CN911 ② REC
0.37Vp-p
Q601
JOG
VI SWP
DUB AREA
IC601 ① REC
IC601 ① PB
0.5Vp-p
IC602(3/4)
CHROMA INVERT
PEAK HOLD
ACK AMP
ACK DET
FF BURST ID
TP601
TP601 PB
0.4Vp-p
DROPOUT PULSE
IC602 ⑭ EE
0.52Vp-p
3.58MHz
Q851 3.58MHz BUFFER
IC851 X3PLL
CF851,Q852 10.7MHz BPF
IC602(4/4)
X601 3.58MHz OSC
CV601 3.58MHz
X'TAL 90°SHIFT
CARRIER CONV
APC DET
AFC
APC ID
378FH VCO
RV601 VCO
Q607,608 REC ATF LPF
REC ATF
L:REC ATF
IC602 ㉘ EE
0.44Vp-p
5.95MHz
SERVO (SE-10)
101-13
REF V
IC603(1/2)
COMP SYNC
V SEPARATOR
HALF H BUFFER
SYNTHESIS GATE
JOG V MUTE
IC603(2/2)
SW PX1/2/H PULSE GENERATOR
AFC/ AFC ID APC ID
1H SELECT
SEL1
SEL2
X602 5.9MHz OSC
1/378
1/8
743KHz
DELAY PULSE GENERATOR
BURST P
DUB AREA
PB LOGIC
IC603 ㊱ REC/PB
IC603 ㊷ REC
IC603 ㊹ EE
IC603 ㉟ EE
IC603 ㊻ PB
IC603 ㊻ REC
5Vp-p
2.6Vp-p
743kHz
PB LOGIC
L:MP/H:ME
L:ME/H:MP
L:LP/H:SP
L:MPHG
DUB AREA
JOG
VI SW PULSE
L:CNR
SYSTEM CONTROL (SE-10)
101-15
101-14
SEL 1
SEL 2
102-12
V MUTE
TP903
914-4
JOG VD
102-4
VIDEO IN/OUT (IF-20)
T601,Q604 REC CHROMA AFM TRAP
Q603
RV201 REC CHROMA LEVEL
Q213,214 C/AFM/ATF MIX
AFM
REC C
ATF
L:MP/H:ME
RV202 REC Y LEVEL
Q215,217,218 Y/C/AFM/ATF MIX AMP
L:ME/H:MP
L:MP HG
TP201
IC701(1/2)
DIRECT CCD
1/2H CCD
Q701
Q702-705 JOG Y AMP
RV701 JOG Y LEVEL
IC701
JOG VD
V MUTE
IC801(1/2)
Q801
Q802 DC BIAS
AUTO BIAS
Q803-806 JOG CHROMA AMP
RV801 JOG CHROMA LEVEL
IC801
L:LP/H:SP

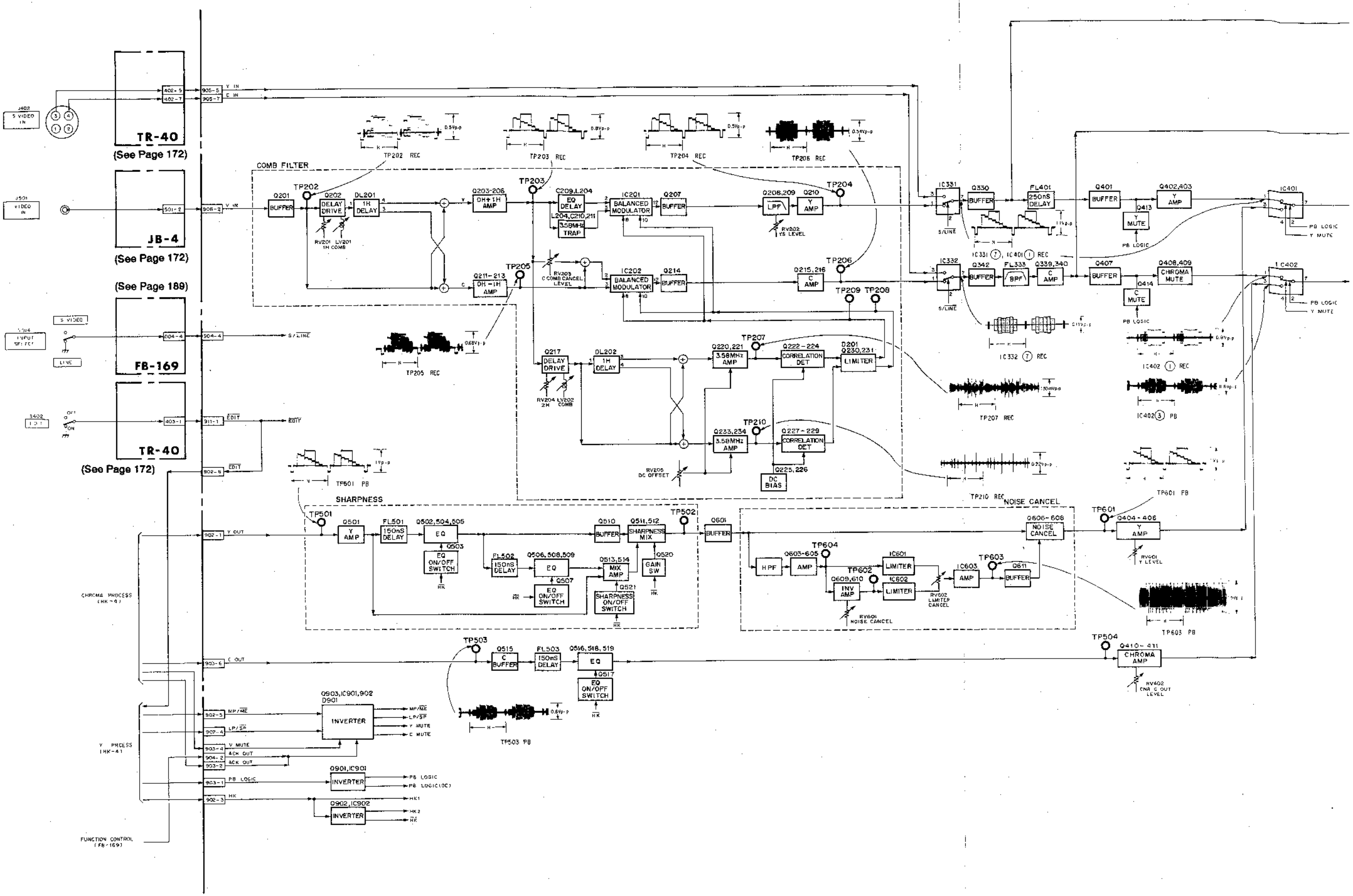

REC AFM
101-3
AFM/PCM AUDIO (MB-19)
RV202 REC Y LEVEL
0.8Vp-p
H
TP201 REC
RV201 CHROMA LEVEL
Q213,214
C/AFM/ATF MIX
AFM
REC C
ATF
L:MP/H:ME
Q215,217,218
Y/C/AFM/ATF MIX AMP
L:ME/H:MP
L:MPHG
TP201
REC VIDEO RF
101-1
REC/PB HEAD AMP (FR-40)
1Vp-p
IC701 ⑫ PB
TP701 PB
1H DELAY
102-3
SERVO (SE-10)
Q701
IC701(1/2)
DIRECT CCD
1/2H CCD
Q702-705
JOG Y AMP
RV701 JOG Y LEVEL
IC701(2/2)
PB LOGIC
Q706,707
VD INSERT
V MUTE
JOG VD
Q708-710
Y OUTPUT AMP
RV702 Y OUTPUT LEVEL
TP701
Y
912-1
JOG VD
V MUTE
JOG
L:LP/H:SP
VIDEO IN/OUT (IF-20)
Q801
IC801(1/2)
DIRECT CCD
1/2H CCD
Q802
DC BIAS
AUTO BIAS
Q803-806
JOG CHROMA AMP
RV801 JOG CHROMA LEVEL
IC801(2/2)
PB LOGIC
Q807
CHROMA MUTE
Q808-810
CHROMA OUTPUT AMP
RV802 CHROMA OUTPUT LEVEL
TP801
TP801 PB
0.8Vp-p
C
914-6
JOG
L:LP/H:SP
JOG VD
V MUTE
CHROMA MUTE
102-2
AFM/PCM AUDIO (MB-19)
Q606,611
ACK LOGIC OUT
ACK
914-2
2.14Vp-p
585NHz
IC602 ㉘ EE
REC ATF
L:REC ATF
101-5
101-7
SERVO (SE-10)
ASC PULSE TO Y
EE TRAP TO Y

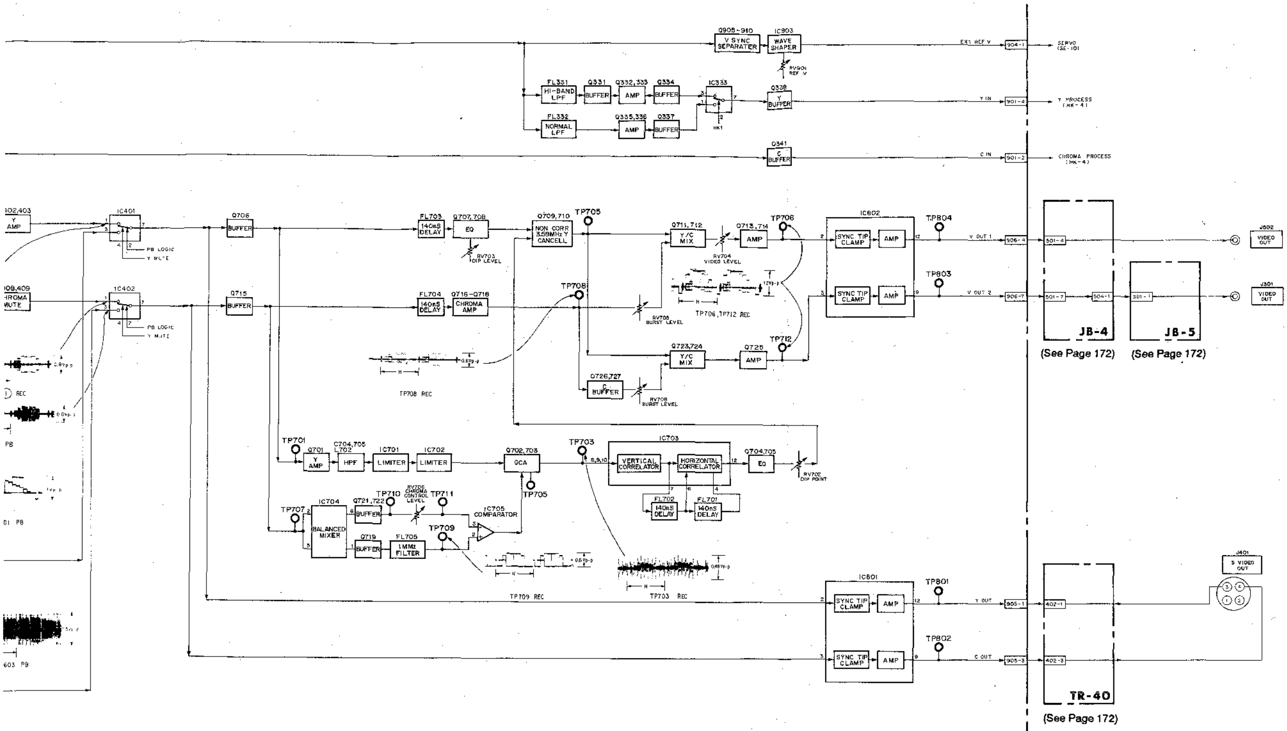
(See Page 89, 94, 107)

HK-4(2/2)

EVO-9500A

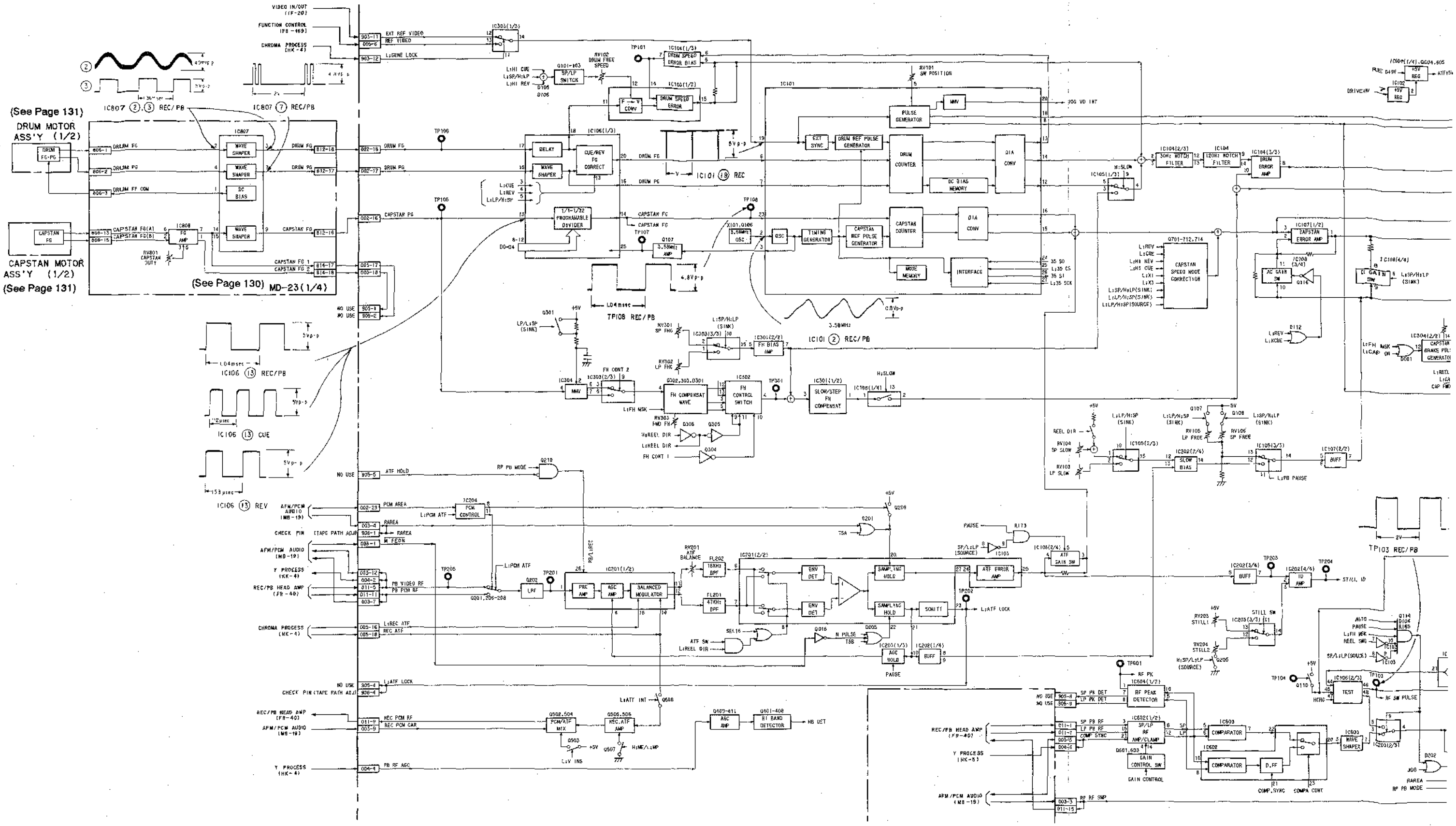
3-6. VIDEO IN/OUT BLOCK DIAGRAM

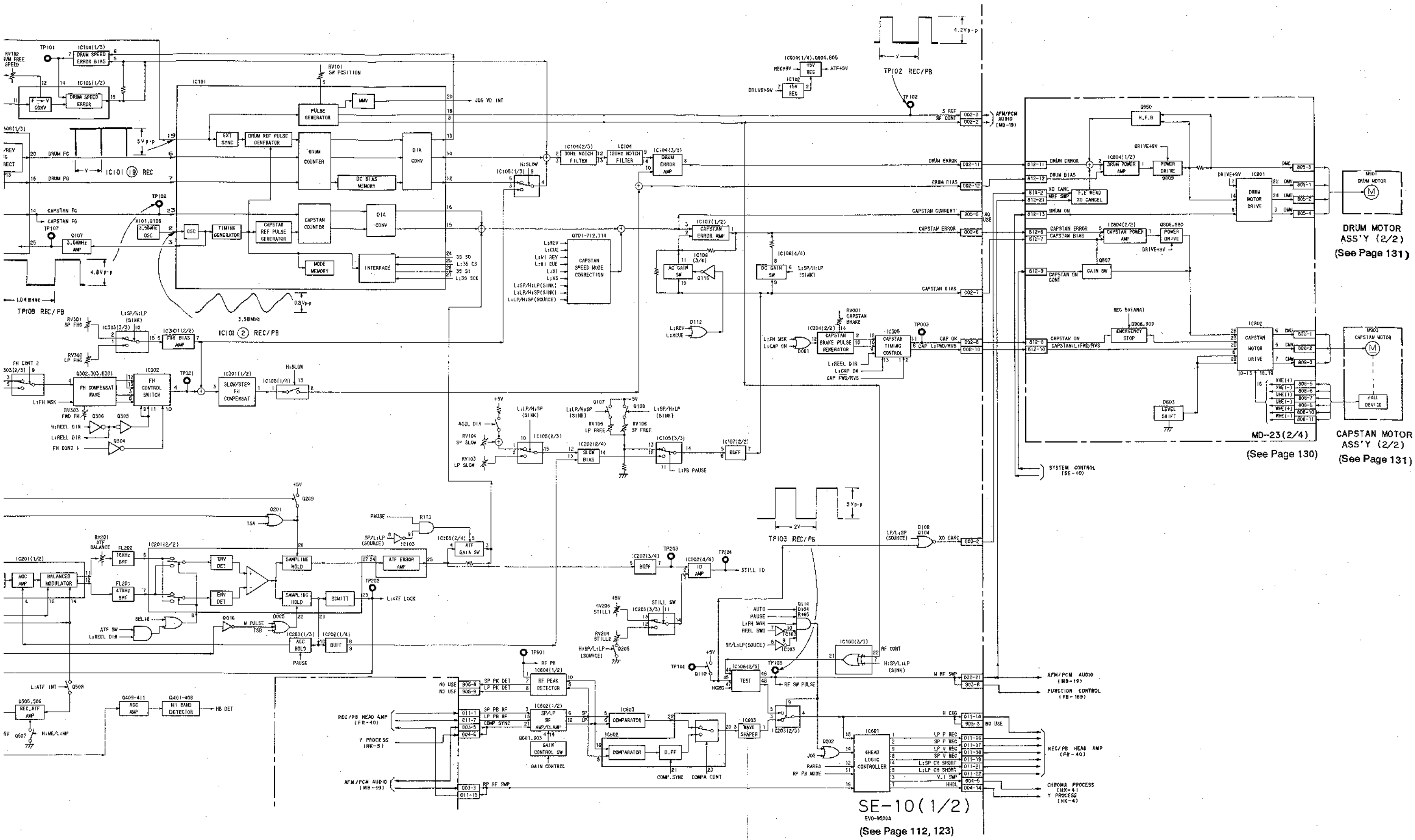

J402 S VIDEO IN
J501 VIDEO IN
J504 INPUT SELECT
S VIDEO
LINE
S402
OFF
ON
TR-40
(See Page 172)
JB-4
(See Page 172)
(See Page 189)
FB-169
TR-40
(See Page 172)
Y IN
C IN
S/LINE
EDIT
COMB FILTER
TP202
Q201 BUFFER
Q202 DELAY DRIVE
DL201 1H DELAY
RV201 LV201 1H COMB
Q203-206 0H+1H AMP
Q211-213 0H-1H AMP
TP203
C209,L204 EQ DELAY
L204,C210,211 3.58MHz TRAP
IC201 BALANCED MODULATOR
Q207 BUFFER
Q208,209 LPF
RV202 YS LEVEL
Q210 Y AMP
TP204
TP205
RV203 C COMB CANCEL LEVEL
IC202 BALANCED MODULATOR
Q214 BUFFER
Q215,216 C AMP
TP206
TP209
TP208
Q217 DELAY DRIVE
RV204 2H
LV202 COMB
DL202 1H DELAY
Q220,221 3.58MHz AMP
TP207
Q222-224 CORRELATION DET
D201 Q230,231 LIMITER
Q233,234 3.58MHz AMP
TP210
Q227-229 CORRELATION DET
RV205 DC OFFSET
Q225,226 DC BIAS
TP202 REC
TP203 REC
TP204 REC
TP206 REC
TP205 REC
0.5Vp-p
0.8Vp-p
0.34Vp-p
0.68Vp-p
IC331
Q330 BUFFER
FL401 250nS DELAY
Q401 BUFFER
Q402,403 Y AMP
Q413 Y MUTE
IC401
PB LOGIC
Y MUTE
IC331 ⑦, IC401 ① REC
IC332
Q342 BUFFER
FL333 BPF
Q339,340 C AMP
Q407 BUFFER
Q408,409 CHROMA MUTE
Q414 C MUTE
IC402
IC332 ⑦ REC
IC402 ① REC
TP207 REC
IC402 ③ PB
TP210 REC
TP601 PB
SHARPNESS
TP501
Q501 Y AMP
FL501 150nS DELAY
Q502,504,505 EQ
Q503 EQ ON/OFF SWITCH
FL502 150nS DELAY
Q506,508,509 EQ
Q507 EQ ON/OFF SWITCH
Q513,514 MIX AMP
Q521 SHARPNESS ON/OFF SWITCH
Q510 BUFFER
Q511,512 SHARPNESS MIX
Q520 GAIN SW
TP502
Q601 BUFFER
TP501 PB
NOISE CANCEL
HPF
Q603-605 AMP
TP604
TP602
Q609,610 INV AMP
RV601 NOISE CANCEL
IC601 LIMITER
IC602 LIMITER
RV602 LIMITER CANCEL
IC603 AMP
TP603
Q611 BUFFER
Q606-608 NOISE CANCEL
TP601
Q404-406 Y AMP
RV401 Y LEVEL
TP603 PB
TP503
Q515 C BUFFER
FL503 150nS DELAY
Q516,518,519 EQ
Q517 EQ ON/OFF SWITCH
TP503 PB
TP504
Q410-411 CHROMA AMP
RV402 CNR C OUT LEVEL
Y OUT
C OUT
CHROMA PROCESS (HK-41)
Y PROCESS (HK-41)
FUNCTION CONTROL (FB-169)
Q903,IC901,902 D901 INVERTER
MP/ME
LP/SP
Y MUTE
C MUTE
ACK OUT
PB LOGIC
HK
Q901,IC901 INVERTER
PB LOGIC
PB LOGIC(OC)
Q902,IC902 INVERTER
HK1
HK2
HK


Q905-910
V SYNC SEPARATER
IC903
WAVE SHAPER
RV901 REF V
EXT REF V
904-1
SERVO (SE-10)
FL331
HI-BAND LPF
Q331
BUFFER
Q332,333
AMP
Q334
BUFFER
IC333
HK1
FL332
NORMAL LPF
Q335,336
AMP
Q337
BUFFER
Q338
Y BUFFER
Y IN
901-4
Y PROCESS (HK-4)
Q341
C BUFFER
C IN
901-2
CHROMA PROCESS (HK-4)
402,403
Y AMP
IC401
PB LOGIC
Y MUTE
408,409
CHROMA MUTE
IC402
PB LOGIC
Y MUTE
0.8Vp-p
REC
0.6Vp-p
PB
01 PB
603 PB
Q706
BUFFER
Q715
BUFFER
FL703
140nS DELAY
Q707,708
EQ
RV703 DIP LEVEL
FL704
140nS DELAY
Q716-Q718
CHROMA AMP
0.6Vp-p
H
TP708 REC
Q709,710
NON CORR 3.58MHz Y CANCELL
TP705
TP708
Q711,712
Y/C MIX
RV704 VIDEO LEVEL
Q713,714
AMP
TP706
12Vp-p
H
TP706,TP712 REC
RV705 BURST LEVEL
Q723,724
Y/C MIX
Q725
AMP
TP712
Q726,727
C BUFFER
RV708 BURST LEVEL
IC802
SYNC TIP CLAMP
AMP
SYNC TIP CLAMP
AMP
TP804
TP803
V OUT 1
V OUT 2
906-4
906-7
501-4
501-7
504-1
301-1
JB-4
(See Page 172)
JB-5
(See Page 172)
J502
VIDEO OUT
J301
VIDEO OUT
TP701
Q701
Y AMP
C704,705 L702
HPF
IC701
LIMITER
IC702
LIMITER
Q702,703
GCA
TP705
TP703
8,9,10
IC703
VERTICAL CORRELATOR
HORIZONTAL CORRELATOR
FL702
140nS DELAY
FL701
140nS DELAY
Q704,705
EQ
RV702 DIP POINT
TP707
IC704
BALANCED MIXER
Q721,722
BUFFER
TP710
RV706 CHROMA CONTROL LEVEL
TP711
IC705 COMPARATOR
Q719
BUFFER
FL705
1MMz FILTER
TP709
0.5Vp-p
TP709 REC
0.48Vp-p
H
TP703 REC
IC801
SYNC TIP CLAMP
AMP
SYNC TIP CLAMP
AMP
TP801
TP802
Y OUT
C OUT
905-1
905-3
402-1
402-3
TR-40
(See Page 172)
J401
S VIDEO OUT

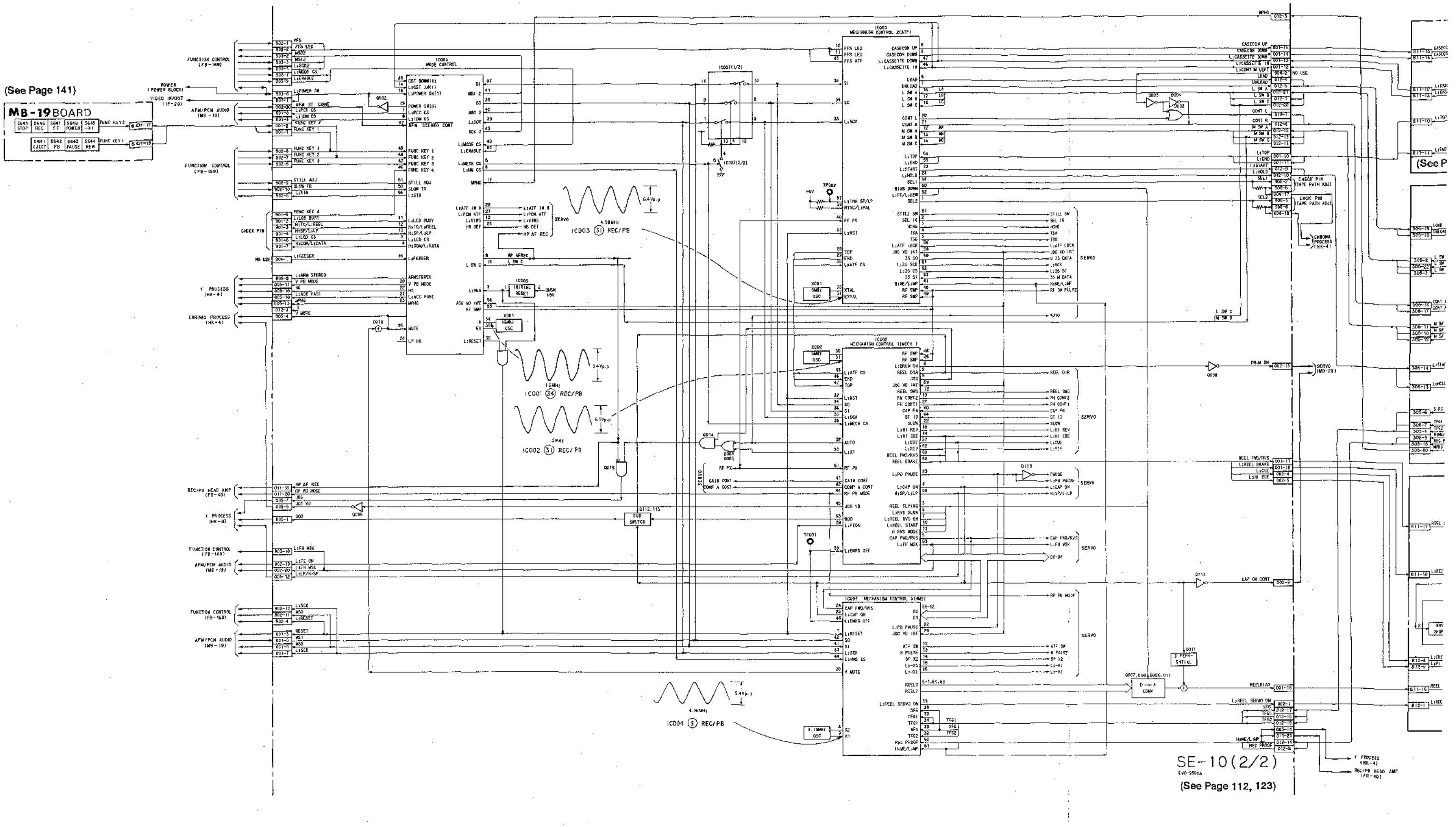
IF-20(1/2)
EVO-9500A
(See Page 183)

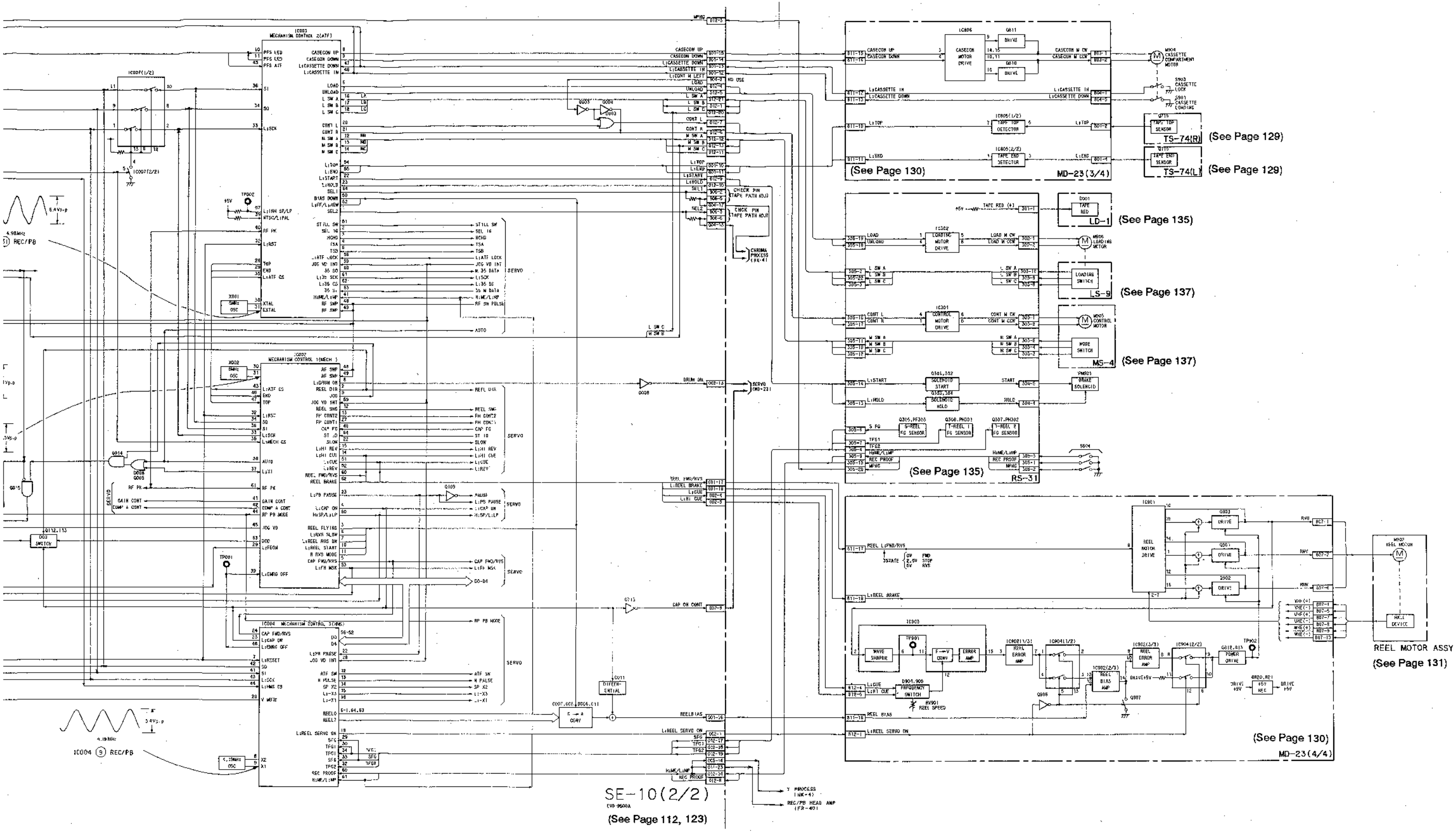
3-7. SERVO BLOCK DIAGRAM


(See Page 131)
DRUM MOTOR ASS'Y (1/2)
CAPSTAN MOTOR ASS'Y (1/2)
(See Page 131)
(See Page 130) MD-23(1/4)
IC807 ②,③ REC/PB
IC807 ⑦ REC/PB
IC807
WAVE SHAPER
DC BIAS
DRUM FG
DRUM PG
DRUM FF CON
CAPSTAN FG
CAPSTAN FG(A)
CAPSTAN FG(B)
IC808
FG AMP
RV801 CAPSTAN DUTY
VIDEO IN/OUT (FF-20)
FUNCTION CONTROL (FB-169)
CHROMA PROCESS (HK-4)
EXT REF VIDEO
REF VIDEO
L:GENE LOCK
IC303(1/3)
TP106
TP105
TP101
TP107
TP108
IC106(1/3)
DELAY
WAVE SHAPER
CUE/REV FG CORRECT
1/1~1/32 PROGRAMMABLE DIVIDER
Q101~103 SP/LP SWITCH
RV102 DRUM FREE SPEED
F→V CONV
IC104(1/3) DRUM SPEED ERROR BIAS
IC103(1/2) DRUM SPEED ERROR
Q107 3.58MHz AMP
X101,Q106 3.58MHz OSC
IC101 ⑲ REC
TP108 REC/PB
IC101 ② REC/PB
IC101
RV101 SW POSITION
PULSE GENERATOR
MMV
EXT SYNC
DRUM REF PULSE GENERATOR
DRUM COUNTER
DC BIAS MEMORY
D/A CONV
OSC
TIMING GENERATOR
CAPSTAN REF PULSE GENERATOR
CAPSTAN COUNTER
MODE MEMORY
INTERFACE
IC104(2/3) 30Hz NOTCH FILTER
IC104 120Hz NOTCH FILTER
IC104(3/3) DRUM ERROR AMP
IC105(1/3)
Q701~712,714 CAPSTAN SPEED MODE CORRECTION
IC107(1/2) CAPSTAN ERROR AMP
IC108 AC GAIN SW
DC GAIN SW
IC106(1/4)
IC106 ⑬ REC/PB
IC106 ⑬ CUE
IC106 ⑬ REV
IC304 MMV
IC303(2/3)
FH CONT 2
Q302,303,D301 FH COMPENSAT WAVE
IC302 FH CONTROL SWITCH
IC301(1/2) SLOW/STEP FH COMPENSAT
IC301(2/2) FH BIAS AMP
RV301 SP FHG
RV302 LP FHG
RV303 FWD FH
TP301
H:SLOW
IC105(2/3)
IC202(2/4) SLOW BIAS
IC105(3/3)
IC107(2/2) BUFF
RV104 SP SLOW
RV103 LP SLOW
RV105 LP FREE
RV106 SP FREE
TP103 REC/PB
AFM/PCM AUDIO (MB-19)
CHECK PIN (TAPE PATH ADJ)
Y PROCESS (HK-4)
REC/PB HEAD AMP (FB-40)
CHROMA PROCESS (HK-4)
IC204 PCM CONTROL
ATF HOLD
Q201
Q209
TP205
TP201
TP202
Q202 LPF
IC201(1/2) PRE AMP
AGC AMP
BALANCED MODULATOR
RV201 ATF BALANCE
FL202 16KHz BPF
FL201 47KHz BPF
IC201(2/2)
ENV DET
SAMPLING HOLD
SCHITT
ATF ERROR AMP
IC108(2/4) ATF GAIN SW
IC203(1/3) AGC HOLD
IC202(1/4) BUFF
L:ATF LOCK
IC202(3/4) BUFF
IC202(4/4) 10 AMP
TP203
TP204
STILL 10
RV203 STILL1
RV204 STILL2
IC203(3/3) STILL SW
Q502,504 PCM/ATF MIX
Q505,506 REC ATF AMP
Q503
Q507
Q508
Q509~411 AGC AMP
Q401~408 HI BAND DETECTOR
HB DET
TP601
IC604(1/2) RF PEAK DETECTOR
IC602(1/2) SP/LP RF AMP/CLAMP
Q601,603 GAIN CONTROL SW
IC603 COMPARATOR
IC602 COMPARATOR
D.FF
IC105(2/3) TEST
TP104
IC603 WAVE SHAPER
RF SW PULSE
COMP.SYNC
COMPA CONT


TP101
IC104(1/3) DRUM SPEED ERROR BIAS
IC103(1/2) DRUM SPEED ERROR
F→V CONV
RV101 SW POSITION
IC101
PULSE GENERATOR
MMV
JOG VD INT
EXT SYNC
DRUM REF PULSE GENERATOR
DRUM COUNTER
D/A CONV
DC BIAS MEMORY
DRUM FG
DRUM PG
CAPSTAN FG
IC101 ⑲ REC
5Vp-p
TP108
X101,Q106 3.58MHz OSC
OSC
TIMING GENERATOR
CAPSTAN REF PULSE GENERATOR
CAPSTAN COUNTER
D/A CONV
MODE MEMORY
INTERFACE
TP107
Q107 3.58MHz AMP
4.8Vp-p
1.04msec
TP108 REC/PB
3.58MHz
0.8Vp-p
IC101 ② REC/PB
H:SLOW
IC105(1/3)
IC104(2/3) 30Hz NOTCH FILTER
IC104 120Hz NOTCH FILTER
IC104(3/3) DRUM ERROR AMP
Q701-712,714 CAPSTAN SPEED MODE CORRECTION
IC107(1/2) CAPSTAN ERROR AMP
IC106(3/4)
AC GAIN SW
Q116
IC106(4/4) DC GAIN SW
L:SP/H:LP (SINK)
D112
L:REV
L:XCUE
RV301 SP FH6
RV302 LP FH6
IC303(3/3)
IC301(2/2) FH BIAS AMP
FH CONT 2
Q302,303,0301 FH COMPENSAT WAVE
L:FH MSK
IC302 FH CONTROL SWITCH
TP301
IC201(1/2) SLOW/STEP FH COMPENSAT
IC108(1/4)
RV303 FWD FH
Q306
Q305
H:REEL DIR
L:REEL DIR
FH CONT 1
Q304
REEL DIR
RV104 SP SLOW
RV103 LP SLOW
L:LP/H:SP (SINK)
IC105(2/3)
IC202(2/4) SLOW BIAS
Q107
Q108
RV105 LP FREE
RV106 SP FREE
IC105(3/3)
IC107(2/2) BUFF
L:PB PAUSE
RV001 CAPSTAN BRAKE
IC304(2/2) CAPSTAN BRAKE PULSE GENERATOR
IC305 CAPSTAN TIMING CONTROL
TP003
L:FH MSK
L:CAP ON
D001
L:REEL DIR
L:CAP ON
CAP FWD/RVS
CAP ON
CAP L:FWD/RVS
IC604(1/4),Q604,605
REC+9V
+5V REG
ATF+5V
IC102 +5V REG
DRIVE+9V
4.2Vp-p
TP102 REC/PB
5 REF
RF CONT
AFM/PCM AUDIO (MB-19)
DRUM ERROR
DRUM BIAS
CAPSTAN CURRENT
CAPSTAN ERROR
CAPSTAN BIAS
Q950 R.F.B
DRIVE+9V
IC804(1/2) DRUM POWER AMP
POWER DRIVE Q809
IC801 DRUM MOTOR DRIVE
XO CANC
MRF SWP
F.E HEAD XO CANCEL
DRUM ON
IC804(2/2) CAPSTAN POWER AMP
Q806,880 POWER DRIVE
CAPSTAN ON CONT
Q807 GAIN SW
REG 5V(ANA)
Q908,909 EMERGENCY STOP
CAPSTAN ON
CAPSTAN L:FWD/RVS
IC802 CAPSTAN MOTOR DRIVE
D803 LEVEL SHIFT
M901 DRUM MOTOR
DRUM MOTOR ASS'Y (2/2)
(See Page 131)
M903 CAPSTAN MOTOR
HALL DEVICE
MD-23(2/4)
(See Page 130)
CAPSTAN MOTOR ASS'Y (2/2)
(See Page 131)
SYSTEM CONTROL (SE-10)
Q209
Q201
TSA
RV201 ATF BALANCE
FL202 16KHz BPF
FL201 47KHz BPF
IC201(2/2)
ENV DET
ENV DET
SAMPLING HOLD
SAMPLING HOLD
SCMITT
IC201(1/2)
AGC AMP
BALANCED MODULATOR
PAUSE
R173
SP/L:LP (SOURCE)
IC103
IC106(2/4) ATF GAIN SW
ATF ERROR AMP
TP202
L:ATF LOCK
SEL16
ATF SW
L:REEL DIR
Q016
N PULSE TSB
D005
IC203(1/3) AGC HOLD
IC202(1/4) BUFF
L:ATF INT
Q508
Q505,506 REC.ATF AMP
Q507
H:ME/L:MP
Q409-411 AGC AMP
Q401-408 Hi BAND DETECTOR
HB DET
IC202(3/4) BUFF
TP203
TP204
IC202(4/4) ID AMP
STILL ID
5Vp-p
TP103 REC/PB
L/L:SP (SOURCE)
D108 Q104
XO CANC
RV203 STILL1
RV204 STILL2
IC203(3/3)
STILL SW
H:SP/L:LP (SOURCE)
Q205
AUTO
PAUSE
L:FH MSK
REEL SWG
SP/L:LP(SOUCE)
Q114 D104 R165
IC103
IC106(3/3)
RF CONT
H:SP/L:LP (SINK)
TP601
RF PK
IC604(1/2) RF PEAK DETECTOR
NO USE
SP PK DET
LP PK DET
SP PB RF
LP PB RF
COMP SYNC
IC602(1/2) SP/LP RF AMP/CLAMP
Q601,603 GAIN CONTROL SW
GAIN CONTROL
REC/PB HEAD AMP (FR-40)
Y PROCESS (HK-5)
AFM/PCM AUDIO (MB-19)
RF SWP
IC603 COMPARATOR
IC602 COMPARATOR
D.FF
COMP.SYNC
COMPA CONT
TP104
Q110
IC106(2/3) TEST
TP103
RF SW PULSE
IC603 WAVE SHAPER
IC203(2/3)
D202
J06
RAREA
RF PB MODE
IC601 4HEAD LOGIC CONTROLLER
H RF SWP
AFM/PCM AUDIO (MB-19)
FUNCTION CONTROL (FB-169)
H CHG
NO USE
LP P REC
SP P REC
LP V REC
SP V REC
L:SP CH SHORT
L:LP CH SHORT
V.I SWP
HHDL
REC/PB HEAD AMP (FR-40)
CHROMA PROCESS (HK-4)
Y PROCESS (HK-4)
SE-10(1/2)
EVO-9500A
(See Page 112, 123)

3-8. SYSTEM CONTROL BLOCK DIAGRAM


(See Page 141)
MB-19 BOARD
FUNCTION CONTROL (FB-169)
POWER (POWER BLOCK)
VIDEO IN/OUT (IF-20)
AFM/PCM AUDIO (MB-19)
CHECK PIN
Y PROCESS (MK-4)
CHROMA PROCESS (MK-4)
REC/PB HEAD AMP (FB-40)
IC001 MODE CONTROL
IC002 MECHANISM CONTROL 1(MECH 1)
IC003 MECHANISM CONTROL 2(ATF)
IC004 MECHANISM CONTROL 3(HWS)
IC007(1/2)
IC007(2/2)
IC008 INITIAL RESET
X001 16MHz OSC
X002 5MHz OSC
X003 5MHz OSC
4.19MHz OSC
IC003 (31) REC/PB
4.98MHz
6.4Vp-p
16MHz
IC001 (34) REC/PB
5.4Vp-p
5MHz
6.5Vp-p
IC002 (31) REC/PB
4.19MHz
5.4Vp-p
IC004 (9) REC/PB
SERVO
BOD SWITCH
D→A CONV
E-FERR-ENTIAL
SE-10(2/2)
EVO-9500A
(See Page 112, 123)
CHROMA PROCESS (MK-4)
SERVO (MD-33)
Y PROCESS (MK-4)
REC/PB HEAD AMP (FR-40)


IC003 MECHANISM CONTROL 2(ATF)
IC002 MECHANISM CONTROL 1(MECH)
IC004 MECHANISM CONTROL 3(RVS)
IC007(1/2)
IC007(2/2)
4.98MHz
⑪ REC/PB
4.19MHz
IC004 ⑨ REC/PB
SERVO
SE-10(2/2)
EVD-9500A
(See Page 112, 123)
MD-23(3/4)
(See Page 130)
TS-74(R)
(See Page 129)
TS-74(L)
(See Page 129)
LD-1
(See Page 135)
LS-9
(See Page 137)
MS-4
(See Page 137)
RS-31
(See Page 135)
MD-23(4/4)
(See Page 130)
REEL MOTOR ASSY
(See Page 131)

SYSTEM CONTROL — VIDEO BLOCK INTERFACE

SIGNAL	I/O	PIN No.	STOP	FF	REW	REC	REC• PAUSE	AUDIO DUB	AUDIO DUB PAUSE	PB	PB• PAUSE	×1	−×1	×2	−×3	CUE (×9)	REV (−×7)	SLOW (1/5)	SLOW (−1/5)
	O	Pin ⑨ of IC002	L	L	L	L	L	H	H	L	H	H	H	H	H	H	H	H	H
	O	Pin ㊲ of IC002	H	H	H	H	H	H	H	H	H	L	H	H	H	H	H	H	H
CONT	O	Pin ㊶ of IC002	H	H	H	H	H	H	H	H∗1	H∗1	H∗1	H∗1	H∗1	H∗1	H∗1	H∗1	H∗1	H∗1
A CONT	O	Pin ㊷ of IC002	H	H	H	H	H	H	L	L	L	L	L	L	L	L	L	L	L
D	O	Pin ㊺ of IC002	H					$\overline{\text{VD}}$ pulse		H	$\overline{\text{VD}}$ pulse								
	O	Pin ㊿ of IC002	It is "H" when recording or playback in SP mode.																
	O	Pin (63) of IC002	L	L	L	L	L	H	L	L	L	L	H	H	H	H	H	L	H
MUTE	O	Pin ⑳ of IC004	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
$\overline{\text{P}}$	O	Pin ⑭ of CN012	It is "L" when using MP tape or MPHG tape.																

s "L" when LP mode.

SYSTEM CONTROL — SERVO (CAPSTAN MOTOR) BLOCK INTERFACE

SIGNAL	I/O	PIN No.	STOP	FF	REW	REC	REC• PAUSE	AUDIO DUB	AUDIO DUB PAUSE	PB	PB• PAUSE	×1	−×1	×2	−×3	CUE (×9)	REV (−×7)	SLOW (1/5)	SLOW (−1/5)
$\overline{\text{N}}$	O	Pin ④ of IC002	H	H	H	L	H	L	H	L	H	L	L	L	L	L	L	∗1	∗1
$\overline{\text{WD}}$/RVS	O	Pin ⑤ of IC002	L	L	L	L	L	L	L	L	L	L	H	L	H	L	H	∗1	∗1
D4	O	Pin ⑯ ~ ⑳ of IC002	"1"	"1"	"1"	"1"	"1"	"1"	"1"	"1"	"1"	"1"	"1"	"2"	"2"	"9"	"7"	"1"	"1"
$\overline{\text{USE}}$	O	Pin ㉓ of IC002	H	H	H	H	H	H	L	H	L	H	H	H	H	H	H	L	L
	O	Pin (51) of IC002	H	H	H	H	H	H	H	H	H	H	H	H	H	L	H	H	H
	O	Pin (52) of IC002	H	H	H	H	H	H	H	H	H	H	H	H	H	H	L	H	H
	O	Pin ⑯ of IC004	H	H	H	H	H	H	H	H	H	H	L	H	H	H	H	H	H
	O	Pin ⑮ of IC004	H	H	H	H	H	H	H	H	H	H	H	H	L	H	H	H	H

D4 MSB
D0 LSB
Decimal

se output

SYSTEM CONTROL — SERVO (DRUM MOTOR) BLOCK INTERFACE

SIGNAL	I/O	PIN No.	STOP	FF	REW	REC	REC• PAUSE	AUDIO DUB	AUDIO DUB PAUSE	PB	PB• PAUSE	×1	−×1	×2	−×3	CUE (×9)	REV (−×7)	SLOW (1/5)	SLOW (−1/5)
$\overline{\text{ON}}$	O	Pin ⑧ of IC002	H	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
NT2	O	Pin ⑬ of IC002	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	∗1	∗1
	O	Pin ㉒ of IC002	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	H	H
NT1	O	Pin ㉗ of IC002	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	∗1	∗1
$\overline{\text{SK}}$	O	Pin (53) of IC002	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	∗1	∗1

se output

3-12.

REEL D
REEL F
$\overline{\text{REEL R}}$
$\overline{\text{REEL R}}$
$\overline{\text{REEL S}}$
R RVS
REEL S
REEL $\overline{\text{F}}$
REEL B
REEL 0~
$\overline{\text{RELL SE}}$

*1. Pulse
*2. Chang
*3. Chang

3-13.

RP PB
JOG VD
SEL 2
SEL16
TSA
TSB
M RF SW
SEL 1
ATF SW
N PULSE

*1. Pulse
*2. Pulse

3-12. SYSTEM CONTROL — SERVO (REEL MOTOR) BLOCK INTERFACE

		MODE	STOP	FF	REW	REC	REC• PAUSE	AUDIO DUB	AUDIO DUB PAUSE	PB	PB• PAUSE	×1	−×1	×2	−×3	CUE (×9)	REV (−×7)	SLOW (1/5)	SLOW (−1/5)
SIGNAL	I/O	PIN No.																	
REEL DIR	O	Pin ② of IC002	H/L	L	H	L	L	L	L	L	H/L	L	H	L	H	L	H	L	H
REEL FLYING	O	Pin ③ of IC002	Normally "L". "H" pulse when change from STOP to FF/REW mode.																
REEL RVS SLOW	O	Pin ⑥ of IC002	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	L
REEL RVS ON	O	Pin ⑦ of IC002	Normally "H". "L" pulse when change from FORWARD to REVERSE (over −×1 speed).																
REEL START	O	Pin ⑩ of IC002	Normally "H". "L" pulse when change from STOP to FF/REW mode.																
R RVS MODE	O	Pin ⑪ of IC002	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
REEL SWG	O	Pin ⑫ of IC002	Normally "L". "H" pulse when change the direction from FORWARD to REVERSE, and vice versa.																
REEL FWD/RVS	O	Pin (60) of IC002	2.5V	L	H	L	2.5V	L	2.5V	L	2.5V	L	H	L	H	L	H	"H" Pulse	"L" Pulse
REEL BRK	O	Pin (62) of IC002	Normally "H". "L" pulse when change from REC to REC•PAUSE mode.																
REEL 0~7	O	Pin ①~⑥, (63), (64) of IC004	"70"	"96"	"96"	"54"	"54"	"54"	"54"	"54"	"70"	"54"	∗2	"70"	∗2	∗3	∗3	"70"	"63"
RELL SERVO ON	O	Pin ⑲ of IC004	H	H	H	H	H	H	H	H	H	L	H	L	H	L	H	H	H

REEL 7 MSB
REEL 0 LSB
BCD code

*1. Pulse output
*2. Changes according to the period of SFG
*3. Changes according to the tape speed (SP/LP)

3-13. SYSTEM CONTROL — SERVO (ATF SERVO) BLOCK INTERFACE

		MODE	STOP	FF	REW	REC	REC• PAUSE	AUDIO DUB	AUDIO DUB PAUSE	PB	PB• PAUSE	×1	−×1	×2	−×3	CUE (×9)	REV (−×7)	SLOW (1/5)	SLOW (−1/5)
SIGNAL	I/O	PIN No.																	
RP PB MODE	O	Pin ㊹ of IC002	H	H	H	L	L	H	H	H	H	H	H	H	H	H	H	H	H
JOG VD INT	I	Pin (59) of IC002, 003	L	Pulse input															
SEL 2	O	Pin ① of IC003	H	H	H	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2
SEL16	O	Pin ② of IC003	L	L	L	∗2	L	∗2	L	∗2	L	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2
TSA	O	Pin ④ of IC003	L	L	L	L	L	∗2	L	∗2	L	∗2	∗2	∗2	∗2	L	L	L	L
TSB	O	Pin ⑤ of IC003	L	L	L	L	L	∗2	L	∗2	L	∗2	∗2	∗2	∗2	L	L	L	L
M RF SW PULSE	I	Pin ㊽, ㊾ of IC003	H/L	FIELD sync pulse															
SEL 1	O	Pin (64) of IC003	H	H	H	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2	∗2
ATF SW	O	Pin ⑫ of IC004	L	L	L	L	L	L	∗1	L	∗1	L	L	L	L	L	L	∗1	∗1
N PULSE	O	Pin ⑬ of IC004	L	L	L	L	L	L	∗1	L	∗1	L	L	L	L	L	L	∗1	∗1

*1. Pulse output
*2. Pulse output with ATF sequence

. SYSTEM CONTROL — SERVO (STILL) BLOCK INTERFACE

	MODE		STOP	FF	REW	REC	REC• PAUSE	AUDIO DUB	AUDIO DUB PAUSE	PB	PB• PAUSE	×1	−×1	×2	−×3	CUE (×9)	REV (−×7)	SLOW (1/5)	SLOW (−1/5)
SIGNAL	I/O	PIN No.																	
PK	I	Pin (61) of IC002	Pulse input in PB PAUSE mode.																
D	I	Pin (64) of IC002	Pulse input in PB PAUSE mode.																
LL SW	O	Pin (51) of IC003	V duration pulse input (‾__‾‾__)																

SYSTEM CONTROL — SERVO (HEAD SELECTING) BLOCK INTERFACE

	MODE		STOP	FF	REW	REC	REC• PAUSE	AUDIO DUB	AUDIO DUB PAUSE	PB	PB• PAUSE	×1	−×1	×2	−×3	CUE (×9)	REV (−×7)	SLOW (1/5)	SLOW (−1/5)
SIGNAL	I/O	PIN No.																	
O	O	Pin ㊳ of IC002	L	L	L	L	L	L	L	L	L	L	L	L	L	H	H	*1	*1
$\overline{P}$	O	Pin ㊿ of IC002	"H" when record or play back in SP mode.																
IG	O	Pin ③ of IC003	*1	*1	*1	*1	*1	*1	*2	*1	*2	*1	*2	*2	*2	*2	*2	*2	*2

lepending upon a tape speed (SP/LP).
ulse output

. SYSTEM CONTROL — SERVO (OTHERS) BLOCK INTERFACE

	MODE		STOP	FF	REW	REC	REC• PAUSE	AUDIO DUB	AUDIO DUB PAUSE	PB	PB• PAUSE	×1	−×1	×2	−×3	CUE (×9)	REV (−×7)	SLOW (1/5)	SLOW (−1/5)
SIGNAL	I/O	PIN No.																	
G	O	Pin ⑨ of IC002	L	L	L	L	L	H	H	L	H	H	H	H	H	H	H	H	H
P FG	I	Pin ㊵ of IC002	Undefined			*1	Undefined	*1	Undefined	*1	Undefined	*1	*1	*1	*1	*1	*1	*1	*1
$\overline{\text{TF LOCK}}$	I	Pin (58) of IC003		*1	*1					*2		*2	*2	*2	*2	*1	*1		

ulse output
L" when ATF servo is phase locked.

3–17. SYST

SIGNA
LOAD
UNLOAD
CASECON UP
CASECON DC
MA–MC
LA–LC
CONTL
CONTR
$\overline{\text{START}}$
$\overline{\text{HOLD}}$
$\overline{\text{CST IN}}$
$\overline{\text{CC DOWN}}$
$\overline{\text{TOP}}$
$\overline{\text{END}}$
SFG
TFG1
TFG2
REC PROOF
ME/$\overline{\text{MP}}$

*1. Pulse accord

3-17. SYSTEM CONTROL — MD BLOCK INTERFACE

SIGNAL	I/O	PIN No.	STOP	FF	REW	REC	REC• PAUSE	AUDIO DUB	AUDIO DUB PAUSE	PB	PB• PAUSE	×1	−×1	×2	−×3	CUE (×9)	REV (−×7)	SLOW (1/5)	SLOW (−1/5)	
LOAD	O	Pin ⑥ of IC003	Normally “L”. “H” in tape threading.																	
UNLOAD	O	Pin ⑦ of IC003	Normally “L”. “H” in tape unthreading.																	
CASECON UP	O	Pin ⑧ of IC003	Normally “L”. “H” in cassette unloading.																	
CASECON DOWN	O	Pin ⑨ of IC003	Normally “L”. “H” in cassette loading.																	
MA~MC	I	Pin ⑫⑬⑭ of IC003	“3”	“6”	“6”	“1”	“1”	“1”	“1”	“1”	“1”	“1”	“1”	“1”	“1”	“1”	“1”	“1”	“1”	MA MSB MC LSB Decimal
LA~LC	I	Pin ⑯⑰⑱ of IC003	“3”	“3”	“3”	“3”	“3”	“3”	“3”	“3”	“3”	“3”	“3”	“3”	“3”	“3”	“3”	“3”	“3”	LA MSB LC LSB Decimal
CONTL	O	Pin ⑳ of IC003	Normally “L”. “H” when change to mechanism mode.																	
CONTR	O	Pin ㉑ of IC003	Normally “L”. “H” when change to mechanism mode.																	
$\overline{\text{START}}$	O	Pin ㉒ of IC003	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	
$\overline{\text{HOLD}}$	O	Pin ㉓ of IC003	H	L	L	H	H	H	H	H	H	H	H	H	H	H	H	H	H	
$\overline{\text{CST IN}}$	I	Pin ㊻ of IC003	Normally “L”. “H” when cassette is ejected.																	
$\overline{\text{CC DOWN}}$	I	Pin ㊼ of IC003	“H” in eject condition. “L” when cassette compartment comes down.																	
$\overline{\text{TOP}}$	I	Pin (54) of IC003	Normally “H”. “L” at tape top.	When both signals are “H”, it is judged that the cassette is loaded. When “L”, it is judged that the cassette is unloaded.																
$\overline{\text{END}}$	I	Pin (55) of IC003	Normally “H”. “L” at tape end.																	
SFG	I	Pin ㉙㉝ of IC004	Undefined	∗1	∗1	∗1	Undefined	∗1	Undefined	∗1	Undefined	∗1	∗1	∗1	∗1	∗1	∗1	∗1	∗1	
TFG1	I	Pin ㉚㉞ of IC004	Undefined	∗1	∗1	∗1	Undefined	∗1	Undefined	∗1	Undefined	∗1	∗1	∗1	∗1	∗1	∗1	∗1	∗1	
TFG2	I	Pin ㉜ of IC004	Undefined	∗1	∗1	∗1	Undefined	∗1	Undefined	∗1	Undefined	∗1	∗1	∗1	∗1	∗1	∗1	∗1	∗1	
REC PROOF	I	Pin (60) of IC004	“L” when recording enable cassette tape is inserted.																	
ME/$\overline{\text{MP}}$	I	Pin (61) of IC004	“L” when MP tape or MPHG tape is used.																	

*1. Pulse according to reel rotation

3-18. MODE CONTROL MICROCOMPUTER — PERIPHERAL CIRCUIT INTERFACE (IC001 (CXP80116) on SE-10 board)

Signal	I/O	PIN No.	Input/Output level
——		1	
——		2	
$\overline{\text{LCD CS}}$	O	3	Connect to check pin. Pulse train of V interval. (‾|_|‾‾|_|‾)
COM/$\overline{\text{DATA}}$	O	4	Connect to check pin. Pulse train of V interval. (‾|/‾‾|/‾)
$\overline{\text{MECH CS}}$	O	5	Chip select signal for mechanism control. Pulse train of V interval. (‾|_|‾‾|_|‾)
$\overline{\text{REEL CS}}$	O	6	Chip select signal for reel control. Pulse train of V interval. (‾|_|‾‾|_|‾)
$\overline{\text{PCC CS}}$	O	7	Chip select signal for PCM microcomputer. Pulse train of V interval. (‾|_|‾‾|_|‾)
$\overline{\text{IDM CS}}$	O	8	Chip select signal for PCM microcomputer. Pulse train of V interval. (‾|_|‾‾|_|‾)
RP AFREC	O	9	"H" in AUDIO DUB Mode.
$\overline{\text{VINS}}$	O	10	Normally "H". Video insert signal.
$\overline{\text{LCD BSUY}}$	I	11	Connect to check pin.
T.C /$\overline{\text{REEL}}$	O	12	Connect to check pin.
SP/$\overline{\text{LP}}$ SW	I	13	Connect to check pin.
$\overline{\text{CASETE IN}}$	I	14	"L" when cassette is inserted.
$\overline{\text{CCDOWN}}$	I	15	"L" when cassette compartment comes down.
L SW C	I	16	"H" Loading switch input.
HG SW	I	17	MPHG tape detection input. "L" when MP or ME cassette is inserted.
$\overline{\text{POWER ON(I)}}$	I	18	"L" when power is on.
POWER ON(O)	O	19	"H" when power is on.
V PB MODE	O	20	"H" when video circuit is in playback mode.
AGC FAST	O	21	Normally "L".
HK	O	22	"H" when Hi8 cassette is inserted.
MPHG	O	23	"H" when MPHG cassette is inserted.
LPHK		24	Not used.
MUTE(I)	I	25	Normally "L". "H" when change the mode from STOP to PB.
HB DET	I	26	"L" when playback the cassette other than for Hi8.
$\overline{\text{PCMATF}}$	O	27	Normally "H".
$\overline{\text{ATF INH}}$	O	28	Normally "H".
$\overline{\text{AFM STEREO V CONT}}$	O	29	"H" in normal playback. "L" in record.
$\overline{\text{RESET}}$	O	30	Reset output. "L" in reset.
MP	I	31	Microprocessor mode select terminal-not select. Connect to GND.
$\overline{\text{RESET(I)}}$	I	32	Reset output. "L" in reset.
Vss		33	Connect to GND.
XTAL	O	34	Crystal oscillator for system clock connection terminal. Oscillating at 16MHz.
EXTAL	I	35	
——		36	
MSI	I	37	Serial data input terminal.
MSO	O	38	Not used.
$\overline{\text{SCK}}$	I	39	Not used.
$\overline{\text{MODE CS}}$	I	40	Chip select signal to IC001 on the FB-169board. Pulse train of V interval.
MSI2	I	41	Communication signal between IC001 (Mode controller) on the FB-169. Pulse train of V inter
MSO2	O	42	Communication signal between IC001 (Mode controller) on the FB-169. Pulse train of V inter
$\overline{\text{SCK2}}$	O	43	Communication signal between IC001 (Mode controller) on the FB-169. Pulse train of V inter
$\overline{\text{FEEDER}}$	I	44	Not used.
TEST	I	45	Not used. Fix to "H" level.
FUNC KEY4	I	46	Not used.
FUNC KEY3	I	47	Not used.
FUNC KEY2	I	48	Not used.
FUNC KEY1	I	49	Not used.
SLOW TR	I	50	SLOW ADJ input. Voltage according to SLOW ADJ control position. (0-5Vdc)
STILL ADJ	I	51	STILL ADJ input. Voltage according to STILL ADJ control position. (0-5Vdc)
AV_{SS}		52	Connect to GND.
AV_{REF}	I	53	Connect to UNSW5V.
AV_{DD}	I	54	Connect to UNSW5V.
SW PLS	I	55	RF SW PULSE input. Pulse train of 2V interval. (‾|_|‾‾|_)
JOG VD INT	I	56	JOG VD input for digital servo IC (IC101 20035). Interrupt signal for microcomputer. Pulse train of V interval.
$\overline{\text{AFM STEREO CONT(I)}}$	I	57	Not used. Fix to "H" level.
——		58	
——		59	
——		60	
——		61	
——		62	
——		63	
——		64	
$\overline{\text{ENABLE}}$	I	65	Communication signal to IC001 (Mode controller) on the FB-169 board. Pulse train of V interval. (‾|_|‾‾|_|‾)
$\overline{\text{SP STB}}$	O	66	Not used.
——		67	
——		68	
NT/$\overline{\text{PAL}}$	I	69	Fix to "H" level.
$\overline{\text{INTD}}$	I	70	Fix to "H" level.
$\overline{\text{NMI}}$	I	71	Fix to "H" level.
V_{DD}		72	Connect to UNSW5V.
V_{SS}		73	Connect to GND.
V_{PP}		74	Connect to UNSW5V.
——		75	
——		76	
——		77	
——		78	
——		79	
——		80	

3-19. SYSTEM CONTROL — PCM AUDIO BLOCK INTERFACE

Signal	I/O	PIN No.	Input/Output level
$\overline{\text{FE ON}}$	O	Pin ㉙ of IC002	Normally "H". "L" in recording or AUDIO DUB.
FH MASK	O	Pin (53) of IC002	"L" pulse during slow playback. "H" in other playback modes.

3-20. SERVO — VIDEO BLOCK INTERFACE

Signal	I/O	PIN No.	Input/Output level
LP PCM REC	O	Pin ① of IC601	Normally "L". "H" pulse of V period in LP mode recording (including AUDIO DUB).
SP PCM REC	O	Pin ② of IC601	Normally "L". "H" pulse of V period in SP mode recording (including AUDIO DUB).
VI SWP	O	Pin ③ of IC601	2V period 50% duty pulse.
$\overline{\text{SP CH SHORT}}$	O	Pin ④ of IC601	Normally "H". "L" in LP recording/playback mode.
$\overline{\text{LP CH SHORT}}$	O	Pin ⑤ of IC601	Normally "L". "H" in LP recording/playback mode.
HH DL	O	Pin ⑦ of IC601	Normally "H". Pulse of variable speed playback.
SP VIDEO REC	O	Pin ⑧ of IC601	Normally "L". "H" in SP recording mode.
LP VIDEO REC	O	Pin ⑨ of IC601	Normally "L". "H" in LP recording mode.
COMP SYNC	I	Pin ⑥ of CN004	Positive composite sync signal.
REF V	I	Pin ⑥ of CN005	"L" pulse of V interval.
H CHG	O	Pin ⑭ of CN001	"H" in SP recording/playback mode. "L" in LP recording/playback mode. Variable speed playback pulse.

3-21. PCM AUDIO — VIDEO BLOCK INTERFACE

Signal	I/O	PIN No.	Input/Output level
$\overline{\text{M FE ON}}$	O	Pin ① of IC601	Normally "H". "L" in recording. "L" pulse of 2V period in AUDIO DUB.
RP AFTER REC	O	Pin (60) of IC601	Normally "L". "H" in AUDIO DUB.
D RF SWP (RP RF SWP)	O	Pin ㉓ of PD-19 board	2V period 50% duty pulse.
RAMP	O	Pin ㊻ of PD-19 board	Normally "L". "H" in AUDIO DUB. ("H" pulse of V interval)
C MUTE	O	Pin (54) of PD-19 board	Normally "L". "H" in AUDIO DUB. ("H" pulse of V interval)
HD INSERT	O	Pin (55) of PD-19 board	Normally "L". "H" pulse of H period in AUDIO DUB. ("H" Pulse of H interval)
AFTER REC MASC	O	Pin (56) of PD-19 board	Normally "L". "H" in AUDIO DUB. ("H" pulse of V interval)

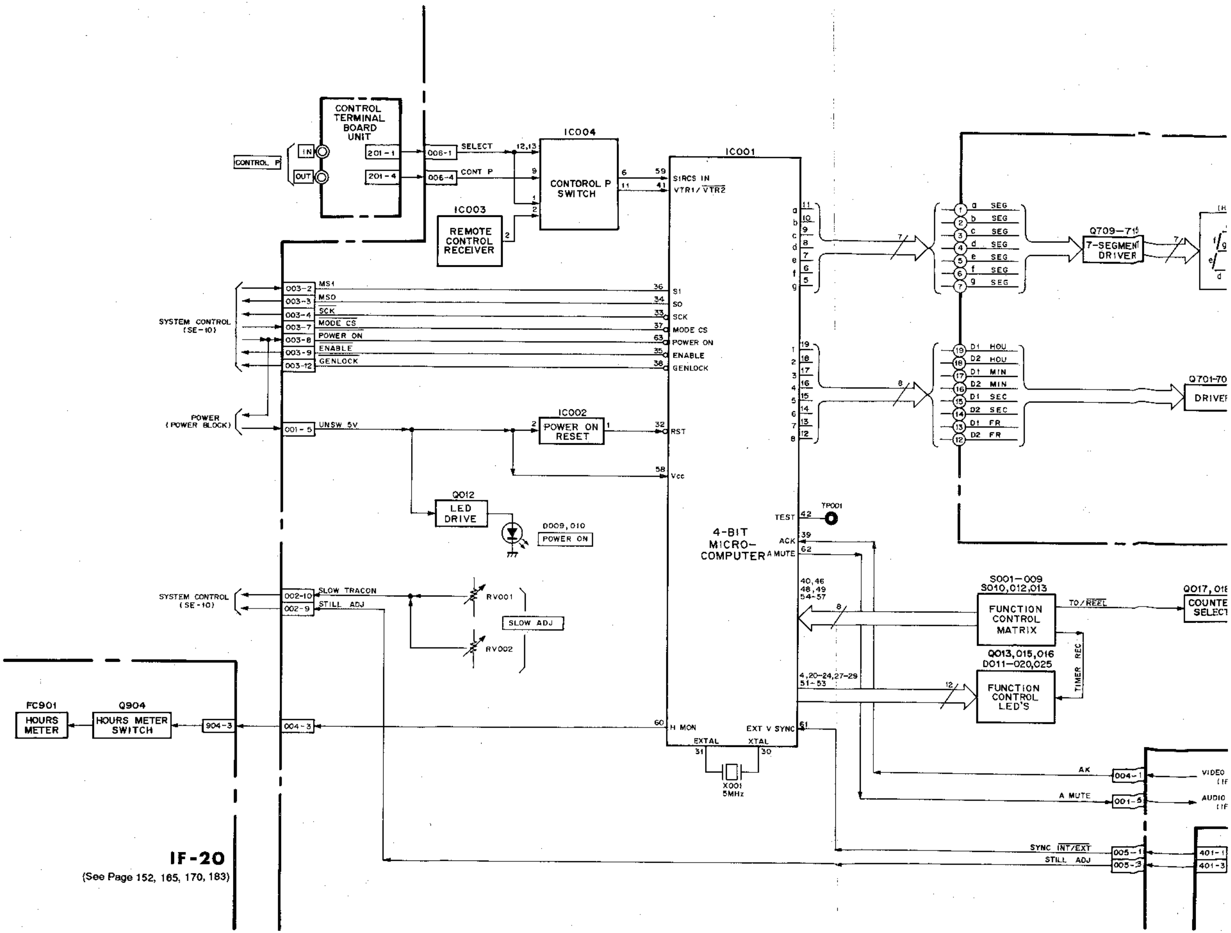
3-22. PCM AUDIO — SERVO BLOCK INTERFACE

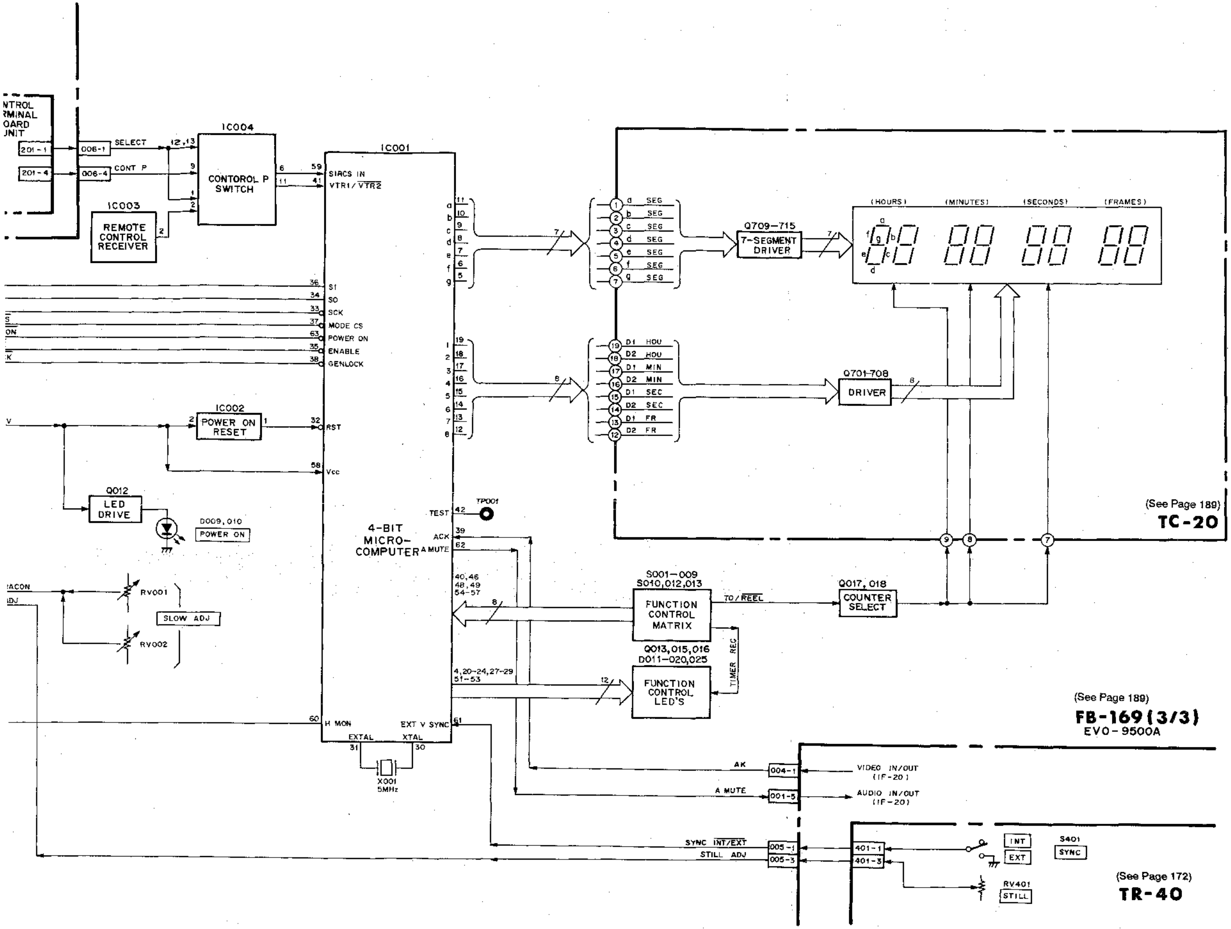
Signal	I/O	PIN No.	Input/Output level
RF CONT	I	Pin ㉙㉚ of IC601	2V period 50% duty pulse.
MS REF	I	Pin ⑭ of RD-19 board	"H" pulse of V period.
R AREA	O	Pin ㊼ of RD-19 board	Normally "L". "H" pulse of V period in record (including AUDIO DUB).
D RF SWP	O	Pin ㊽ of RD-19 board	2V period 50% duty pulse.
RF AREA	O	Pin (57) of RD-19 board	Normally "L". "H" pulse of V period in record (including AUDIO DUB).
RF CONT SWP	I	Pin (58) of RD-19 board	2V period 50% duty pulse.

3-23. PCM AUDIO — AUDIO BLOCK INTERFACE

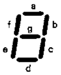
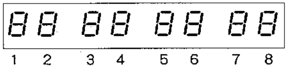
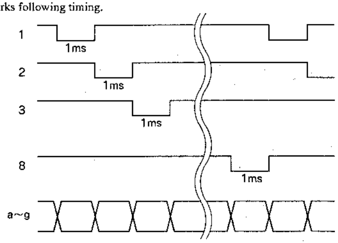
Signal	I/O	PIN No.	Input/Output level
MONO/$\overline{\text{STE}}$ OUT	O	Pin ⑪ of IC601	Normally "L". "H" when monaural PCM audio signal is played back.
MONO/$\overline{\text{STE}}$ IN	I	Pin ㊴ of IC601	Normally "L". Goes to "H" in microphone input or monaural PCM audio signal is played back by player.
PCM MUTE	O	Pin ㊾ of IC601	"H" when PCM audio signal can not be played back or at the mode transition.
AFM REC/$\overline{\text{PB}}$	O	Pin (51) of IC601	Normally "H". "L" in playback (including variable speed playback).
AFM MUTE	O	Pin (55) of IC601	Normally "L". "H" in the mode transition.
$\overline{\text{AUEE}}$ PORT	O	Pin (56) of IC601	Normally "L". "H" in playback (including variable speed playback).
MODE	O	Pin ㉙ of RD-19 board	Normally "L". "H" in playback (including variable speed playback).

3-24. FUNCTION CONTROL BLOCK DIAGRAM


CONTROL TERMINAL BOARD UNIT
CONTROL P
IN
OUT
201-1
201-4
006-1
006-4
SELECT
CONT P
IC004
CONTOROL P SWITCH
IC003
REMOTE CONTROL RECEIVER
IC001
SIRCS IN
VTR1/VTR2
MS1
MSO
SCK
MODE CS
POWER ON
ENABLE
GENLOCK
003-2
003-3
003-4
003-7
003-8
003-9
003-12
SYSTEM CONTROL (SE-10)
S1
SO
SCK
MODE CS
POWER ON
ENABLE
GENLOCK
POWER (POWER BLOCK)
001-5
UNSW 5V
IC002
POWER ON RESET
RST
Vcc
Q012
LED DRIVE
D009, 010
POWER ON
4-BIT MICRO-COMPUTER
TEST
TP001
ACK
A MUTE
SYSTEM CONTROL (SE-10)
002-10
002-9
SLOW TRACON
STILL ADJ
RV001
RV002
SLOW ADJ
FC901
HOURS METER
Q904
HOURS METER SWITCH
904-3
004-3
H MON
EXT V SYNC
EXTAL
XTAL
X001 5MHz
IF-20
(See Page 152, 165, 170, 183)
a SEG
b SEG
c SEG
d SEG
e SEG
f SEG
g SEG
Q709-715
7-SEGMENT DRIVER
D1 HOU
D2 HOU
D1 MIN
D2 MIN
D1 SEC
D2 SEC
D1 FR
D2 FR
Q701-70
DRIVER
S001-009
S010, 012, 013
FUNCTION CONTROL MATRIX
TO/REEL
Q017, 018
COUNTER SELECT
REC
TIMER
Q013, 015, 016
D011-020, 025
FUNCTION CONTROL LED'S
40, 46
48, 49
54-57
4, 20-24, 27-29
51-53
AK
004-1
VIDEO
A MUTE
001-5
AUDIO
SYNC INT/EXT
STILL ADJ
005-1
005-3
401-1
401-3


CONTROL TERMINAL BOARD UNIT
201-1
201-4
006-1
006-4
SELECT
CONT P
IC004
CONTOROL P SWITCH
IC003
REMOTE CONTROL RECEIVER
IC001
SIRCS IN
VTR1/VTR2
SI
SO
SCK
MODE CS
POWER ON
ENABLE
GENLOCK
IC002
POWER ON RESET
RST
Vcc
Q012
LED DRIVE
D009, 010
POWER ON
4-BIT MICRO-COMPUTER
TEST
TP001
ACK
A MUTE
RV001
RV002
SLOW ADJ
H MON
EXT V SYNC
EXTAL
XTAL
X001 5MHz
a SEG
b SEG
c SEG
d SEG
e SEG
f SEG
g SEG
Q709-715
7-SEGMENT DRIVER
(HOURS)
(MINUTES)
(SECONDS)
(FRAMES)
D1 HOU
D2 HOU
D1 MIN
D2 MIN
D1 SEC
D2 SEC
D1 FR
D2 FR
Q701-708
DRIVER
S001-009
S010, 012, 013
FUNCTION CONTROL MATRIX
TC/REEL
Q017, 018
COUNTER SELECT
Q013, 015, 016
D011-020, 025
FUNCTION CONTROL LED'S
TIMER REC
AK
A MUTE
004-1
001-5
VIDEO IN/OUT (IF-20)
AUDIO IN/OUT (IF-20)
SYNC INT/EXT
STILL ADJ
005-1
005-3
401-1
401-3
INT
EXT
S401
SYNC
RV401
STILL
(See Page 189)
TC-20
(See Page 189)
FB-169 (3/3)
EVO-9500A
(See Page 172)
TR-40

3-25. TIMER MICROCOMPUTER (IC001 (CXP5046) on FB-169 board) INTERFACE

Signal name	I/O	PIN No.	Function
——	O	1	Not used.
——	O	2	
——	O	3	
AU DUB	O	4	DUB LED Control signal. H : LED ON L : LED OFF
g	O	5	Control signal for each segment of 7-segment LED. H : LED ON L : LED OFF 
f	O	6	
e	O	7	
d	O	8	
c	O	9	
b	O	10	
a	O	11	
8	O	12	ON/OFF control signal for each segment of 7-segment LED. H : LED OFF L : LED ON  It works following timing. 
7	O	13	
6	O	14	
5	O	15	
4	O	16	
3	O	17	
2	O	18	
1	O	19	
$\overline{\text{LP LED}}$	O	20	Not used.
$\overline{\text{SP LED}}$	O	21	SP LED control signal. L : LED ON H : LED OFF
$\overline{\text{PCM LED}}$	O	22	PCM LED control signal. L : LED ON H : LED OFF
$\overline{\text{CIN LED}}$	O	23	CASSETTE-IN LED control signal. L : LED ON H : LED OFF
$\overline{\text{PAUSE LED}}$	O	24	PAUSE LED control signal.GND。 L : LED ON H : LED OFF
GND	O	25	GND

Signal name	I/O	PIN No.	Function
Vcc	O	26	UNSW5V.
$\overline{\text{FF LED}}$	O	27	FF LED control signal. L : LED ON H : LED OFF
$\overline{\text{PLAY LED}}$	O	28	PLAY LED control signal. L : LED ON H : LED OFF
$\overline{\text{REW LED}}$	O	29	REW LED control signal. L : LED ON H : LED OFF
		30	5MHz Oscillation.
		31	5MHz Oscillation.
$\overline{\text{RESET}}$	I	32	System reset input terminal.
$\overline{\text{SCK}}$	O	33	Communication line to a mode control microcomputer (IC001/SE-10board) inside the Core-deck. Full-duplex serial data of 24-byte can be transmitted by 5-bit data. (See Fig.3-1)
SO	O	34	
$\overline{\text{ENABLE}}$	I	35	
SI	I	36	
$\overline{\text{MODE CS}}$	O	37	
$\overline{\text{GENLOCK}}$	I	38	Sync control signal of core-deck. When it is "L", phase is locked to V SYNC input from external device, forcibly. Actuality, Pin 61 is "L" level and sync is locked with external device when the mode is playback or ×1 mode.
ACK	I	39	Burst existence signal. This signal is used for detecting the video signal existence. H : Blank L : Video signal exist
TC/$\overline{\text{REEL}}$	I	40	Selection signal to display the time code or reel counter on the 8-digit 7-segment LED. H : Time code L : Reel counter
VTRI/$\overline{\text{II}}$	I	41	Sircs category code selection signal input to pin 59. H : Receive VTR I L : Receive VTR II
$\overline{\text{TEST}}$	I	42	"L" in TEST mode.
$\overline{\text{PRINTER}}$	I	43	"L" in Printer. Not used.
PRGINC	I	44	Control signal to increment a chapter number, when the printer has been used. Not used.
——	——	45	Not used.
$\overline{\text{AUTO REPEAT}}$	I	46	Switching signal to AUTO REPEAT mode. AUTO REPEAT is carried out when the ACK at pin 39 is "L".
$\overline{\text{AUTO PB}}$	I	47	Not used.
$\overline{\text{TIMER PB}}$	I	48	Switching signal for automatic playback when the power is turned ON. Automatic playback is carried out when it is "L".
$\overline{\text{TIMER REC}}$	I	49	Switching signal for automatic recording when the power is turned ON. When it is set to "L", unit is set into the record mode by turning the power ON.
$\overline{\text{J/S LED}}$	O	50	Not used.
$\overline{\text{EJECT LED}}$	O	51	EJECT LED control signal. L : LED ON H : LED OFF

Signa
$\overline{\text{HB}}$
$\overline{\text{REC}}$
KE
KE
KE
KE
V
SIR
HM
INT
A M
$\overline{\text{POW}}$

External

$\overline{\text{ENABLE}}$

$\overline{\text{MODE CS}}$

$\overline{\text{SCK}}$
Ext micro
output

SI

SO

ta :
tb :
tc :
td :
te :

Signal name	I/O	PIN No.	Function
Vcc	O	26	UNSW5V.
FF LED	O	27	FF LED control signal. L : LED ON H : LED OFF
PLAY LED	O	28	PLAY LED control signal. L : LED ON H : LED OFF
REW LED	O	29	REW LED control signal. L : LED ON H : LED OFF
		30	5MHz Oscillation.
		31	5MHz Oscillation.
RESET	I	32	System reset input terminal.
SCK	O	33	Communication line to a mode control microcomputer (IC001/SE-10board) inside the Core-deck. Full-duplex serial data of 24-byte can be transmitted by 5-bit data. (See Fig.3-1)
SO	O	34	
ENABLE	I	35	
SI	I	36	
MODE CS	O	37	
GENLOCK	I	38	Sync control signal of core-deck. When it is "L", phase is locked to V SYNC input from external device, forcibly. Actuality, Pin 61 is "L" level and sync is locked with external device when the mode is playback or ×1 mode.
ACK	I	39	Burst existence signal. This signal is used for detecting the video signal existence. H : Blank L : Video signal exist
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VTRI/II	I	41	Sircs category code selection signal input to pin 59. H : Receive VTR I L : Receive VTR II
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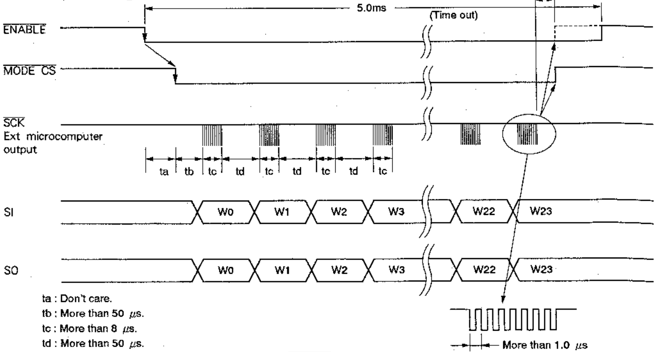
PRINTER	I	43	"L" in Printer. Not used.
PRGINC	I	44	Control signal to increment a chapter number, when the printer has been used. Not used.
——	——	45	Not used.
AUTO REPEAT	I	46	Switching signal to AUTO REPEAT mode. AUTO REPEAT is carried out when the ACK at pin 39 is "L".
AUTO PB	I	47	Not used.
TIMER PB	I	48	Switching signal for automatic playback when the power is turned ON. Automatic playback is carried out when it is "L".
TIMER REC	I	49	Switching signal for automatic recording when the power is turned ON. When it is set to "L", unit is set into the record mode by turning the power ON.
J/S LED	O	50	Not used.
EJECT LED	O	51	EJECT LED control signal. L : LED ON H : LED OFF

Signal name	I/O	PIN No.	Function
HB LED	O	52	Hi8 LED control signal. L : LED ON H : LED OFF
REC LED	O	53	REC LED control signal. L : LED ON H : LED OFF
KEY1	I	54	A/D port for KEY Detection. DUB, $+^1/_5$, $-^1/_5$
KEY2	I	55	A/D port for KEY Detection. POWER, REW, RESET
KEY3	I	56	A/D port for KEY Detection. EJECT, PLAY, PAUSE
KEY4	I	57	A/D port for KEY Detection. STOP, REC, FF
Vcc		58	UNSW5V.
SIRCS IN	I	59	SIRCS Signal input terminal.
HMON	O	60	Control signal for the hours meter. It goes to "L" during rotating the drum based on the data transmitted from the core-deck.
INT/EXT	I	61	Switching signal for EXT/INT Sync. L : External sync mode
A MUTE	O	62	Audio muting control signal. Mute by "H".
POWER ON	I	63	Power on detection signal. L : Power on
	O	64	Not used.

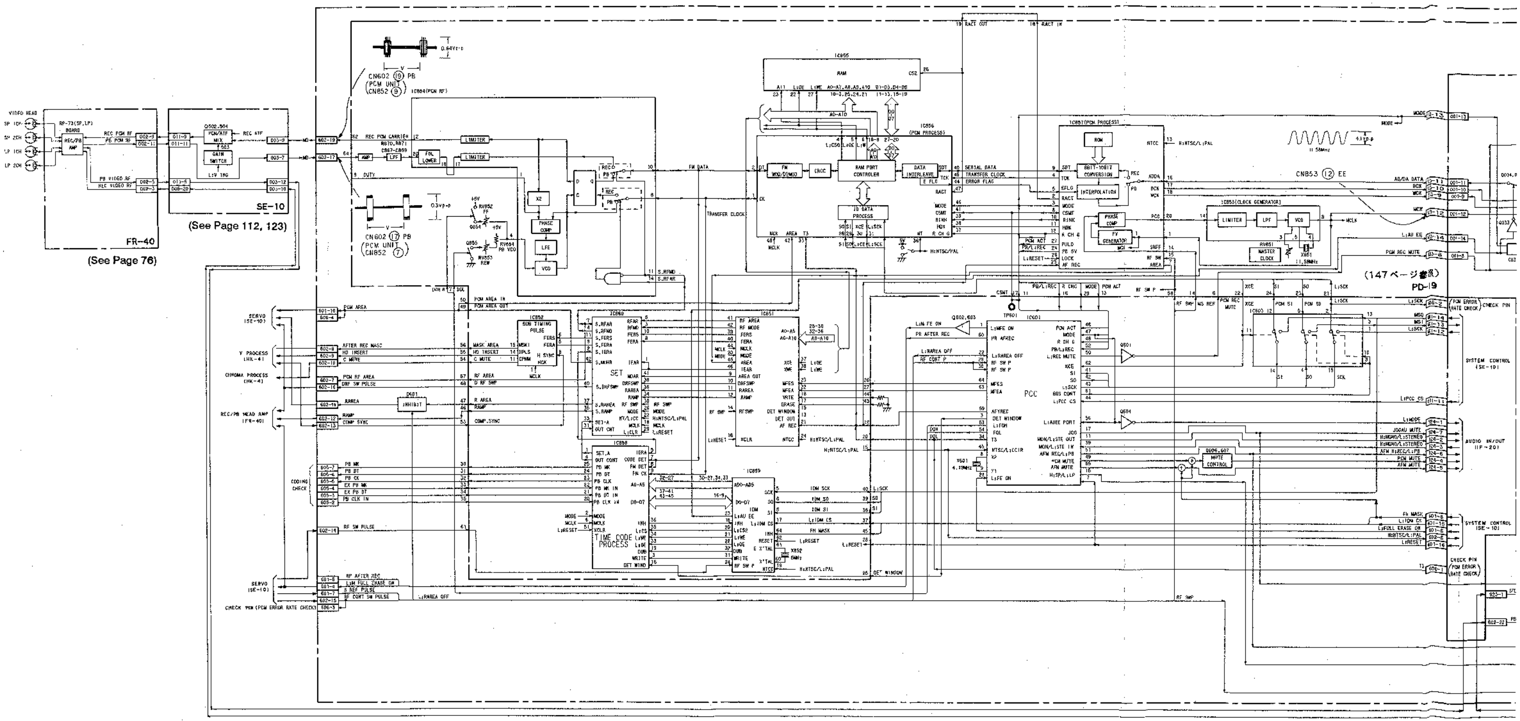
External Bus Timing chart

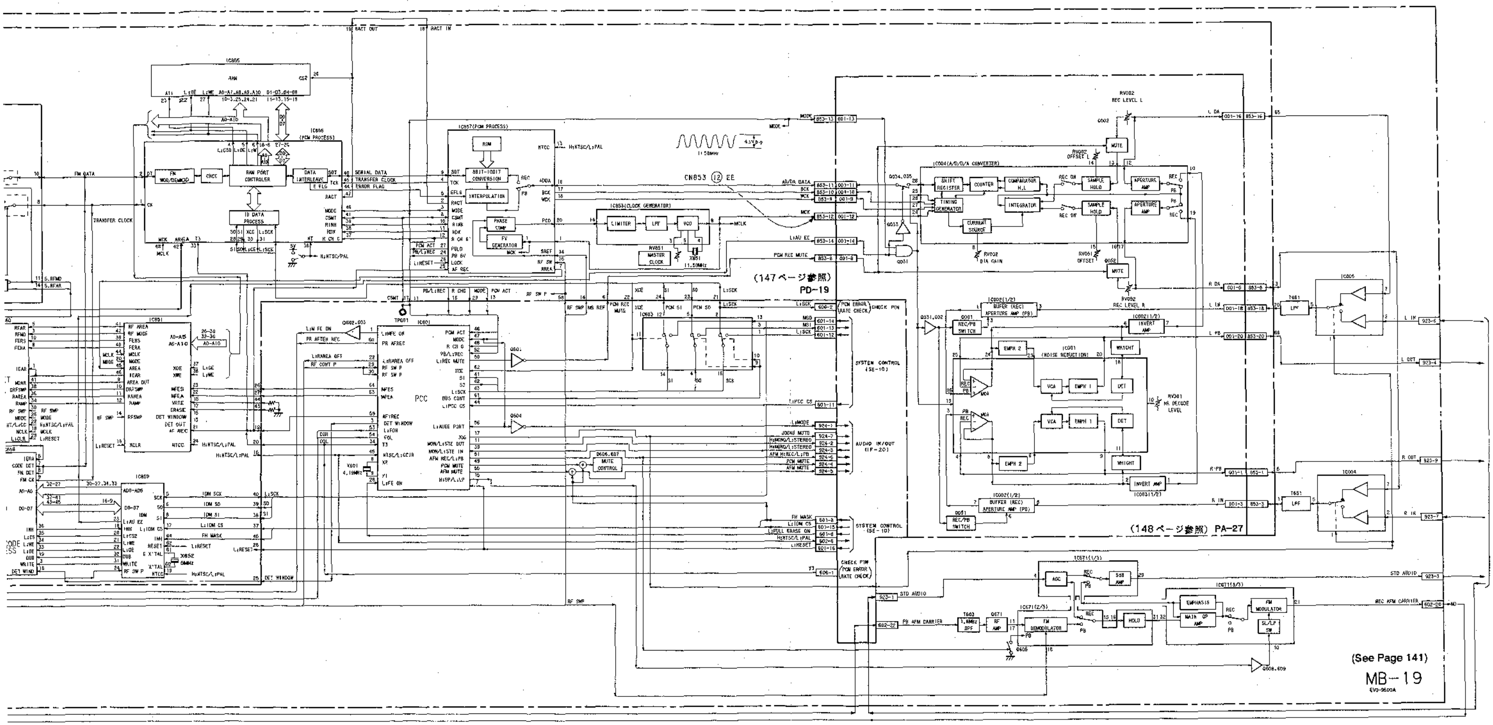


ta : Don't care.
tb : More than 50 μs.
tc : More than 8 μs.
td : More than 50 μs.
te : More than 100 μs (Time duration to enable the ENABLE after completing the last communication.)

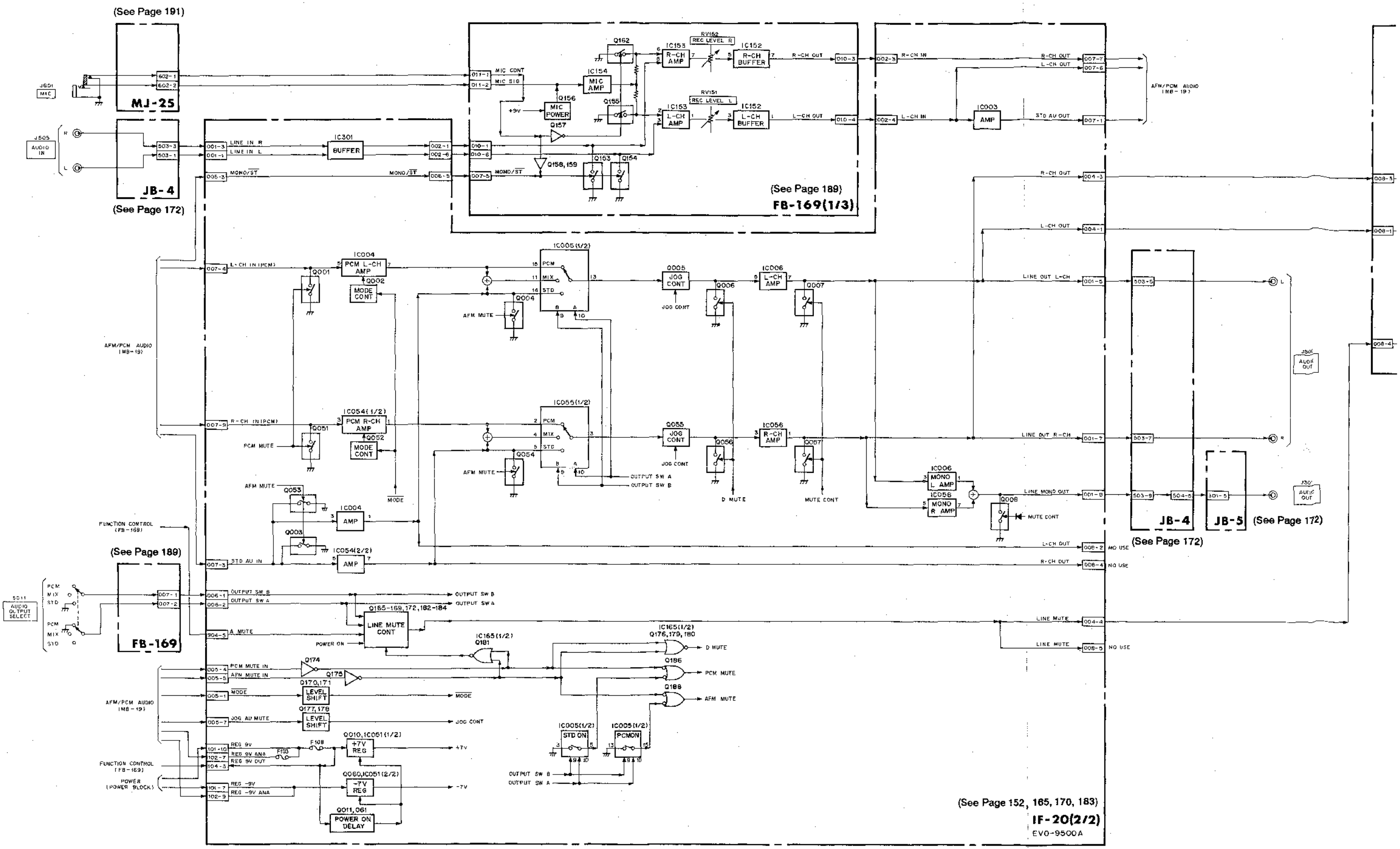
Fig. 3-1

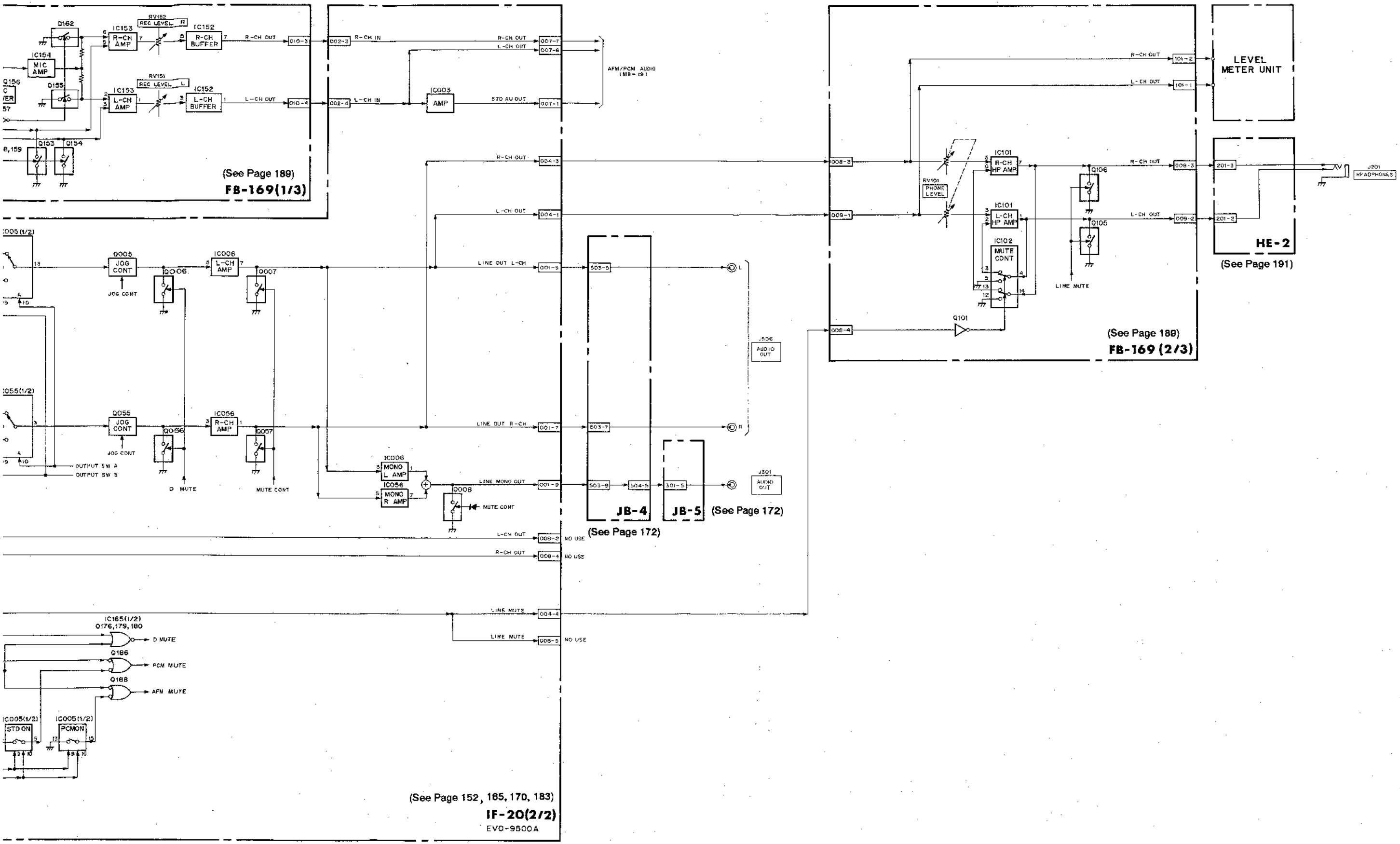
3-26. AFM/PCM AUDIO BLOCK DIAGRAM

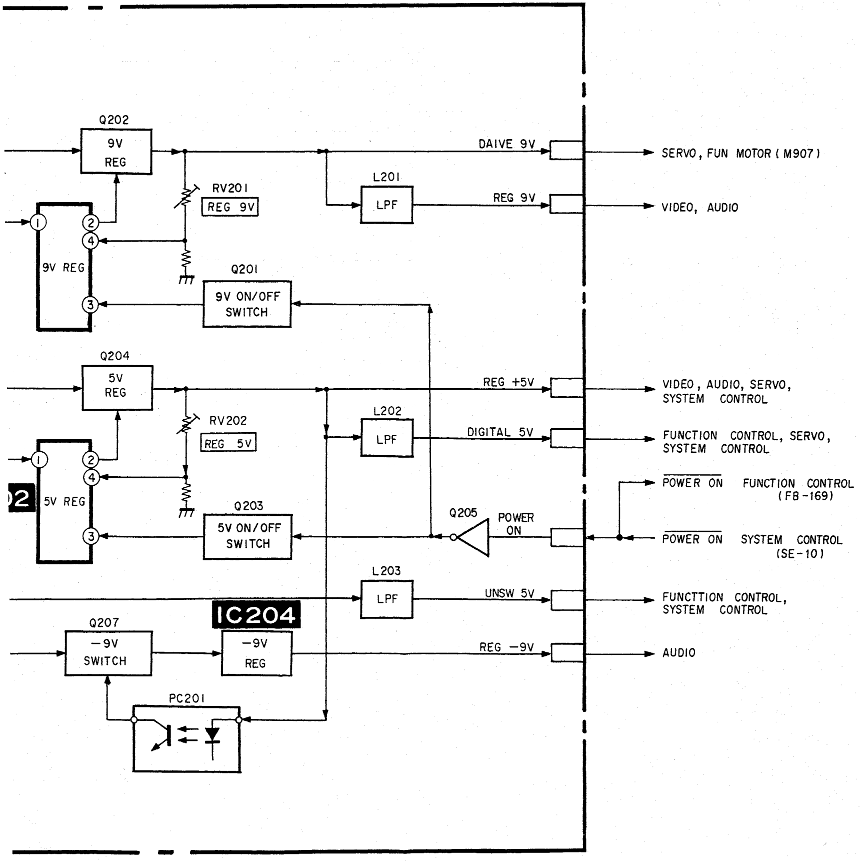

VIDEO HEAD
SP 1CH
SP 2CH
LP 1CH
LP 2CH
RP-73(SP,LP) BOARD
REC/PB AMP
REC PCM RF
PB PCM RF
PB VIDEO RF
REC VIDEO RF
FR-40
(See Page 76)
Q502,504
PCM/ATF MIX
REC ATF
503
GAIN SWITCH
L:V ING
SE-10
(See Page 112, 123)
CN602 ⑲ PB
(PCM UNIT)
(CN852 ⑨)
CN602 ⑰ PB
(PCM UNIT)
(CN852 ⑦)
0.64Vp-p
0.3Vp-p
IC854(PCM RF)
REC PCM CARRIER
LIMITER
FOL LOWER
LPF
AMP
DUTY
X2
PHASE COMP
LPF
VCO
RV852 FF
RV854 PB VCO
RV853 REW
IC855
RAM
IC856 (PCM PROCESS)
FM MOD/DEMOD
CRCC
RAM PORT CONTROLER
DATA INTERLEAVE
10 DATA PROCESS
SERIAL DATA
TRANSFER CLOCK
ERROR FLAG
RACT OUT
RACT IN
FM DATA
H:NTSC/PAL
IC857(PCM PROCESS)
ROM
8BIT-10BIT CONVERSION
INTERPOLATION
PHASE COMP
FV GENERATOR
IC853(CLOCK GENERATOR)
LIMITER
LPF
VCO
RV851 MASTER CLOCK
X851 11.58MHz
11.58MHz
CN853 ⑫ EE
(147ページ参照)
PD-19
IC852 DUB TIMING PULSE
IC860
SET
IC851
IC858
TIME CODE PROCESS
IC859
D601 INHIBIT
IC603
PCC
TP601
Q602,603
Q601
Q604
Q606,607 MUTE CONTROL
X601
X852
SERVO (SE-10)
Y PROCESS (HK-41)
CHROMA PROCESS (HK-41)
REC/PB HEAD AMP (FR-40)
CODING CHECK
CHECK PIN (PCM ERROR RATE CHECK)
SYSTEM CONTROL (SE-10)
AUDIO IN/OUT (IF-20)
CHECK PIN (PCM ERROR RATE CHECK)


IC865
RAM
IC856 (PCM PROCESS)
FM MOD/DEMOD
CRCC
RAM PORT CONTROLER
DATA INTERLEAVE
ID DATA PROCESS
IC857 (PCM PROCESS)
ROM
8BIT-10BIT CONVERSION
INTERPOLATION
PHASE COMP
FV GENERATOR
IC853 (CLOCK GENERATOR)
LIMITER
LPF
VCO
RV851 MASTER CLOCK
X851 11.58MHz
CN853 ⑫ EE
(147ページ参照) PD-19
IC851
IC859
IC601
PCC
X601 4.19MHz
X852 5MHz
Q606,607 MUTE CONTROL
IC603
SYSTEM CONTROL (SE-10)
AUDIO IN/OUT (IF-20)
CHECK PIN (PCM ERROR RATE CHECK)
IC004 (A/D/D/A CONVERTER)
SHIFT REGISTER
COUNTER
COMPARATOR H,L
SAMPLE HOLD
APERTURE AMP
INTEGRATOR
TIMING GENERATOR
CURRENT SOURCE
RV002 REC LEVEL L
RV002 OFFSET L
RV052 REC LEVEL R
RV051 OFFSET
RV002 BIA GAIN
MUTE
IC002(1/2) BUFFER (REC) APERTURE AMP (PB)
IC003(1/2) INVERT AMP
IC001 (NOISE REDUCTION)
EMPH 2
EMPH 1
VCA
DET
WEIGHT
RV001 NR DECODE LEVEL
REC/PB SWITCH
T651 LPF
IC005
IC004
L IN
L OUT
R OUT
R IN
AUDIO IN/OUT (IF-20)
(148ページ参照) PA-27
IC671(1/3)
AGC
SSB AMP
IC671(2/3)
T603 1.5MHz BPF
Q671 RF AMP
FM DEMODULATOR
HOLD
IC671(3/3)
EMPHASIS
MAIN OP AMP
FM MODULATOR
SL/LP SW
STD AUDIO
PB AFM CARRIER
REC AFM CARRIER
Q608,609
(See Page 141)
MB-19
EVO-9500A

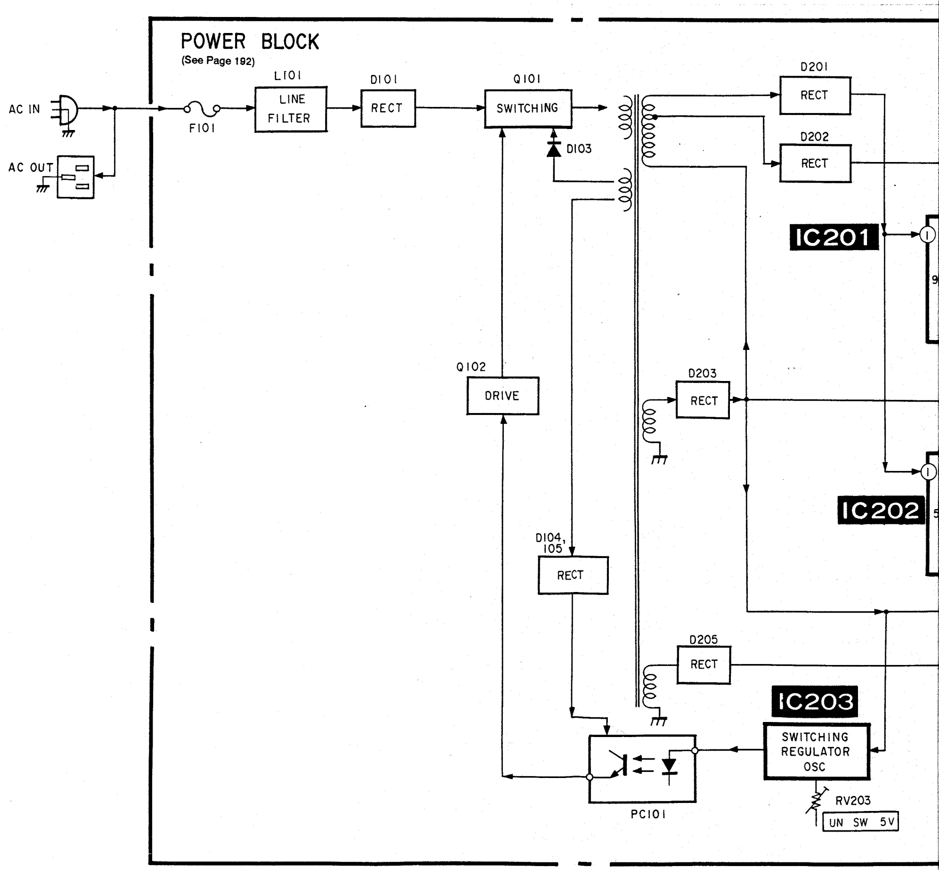
3-27. AUDIO IN/OUT BLOCK DIAGRAM


(See Page 191)
MJ-25
J601 MIC
602-1
602-2
J505 AUDIO IN
R
L
503-3
503-1
JB-4
(See Page 172)
001-3 LINE IN R
001-1 LINE IN L
IC301 BUFFER
002-1
002-6
005-3 MONO/ST
006-5
010-1
010-6
007-5 MONO/ST
011-1 MIC CONT
011-2 MIC SIG
Q162
IC153 R-CH AMP
RV152 REC LEVEL R
IC152 R-CH BUFFER
R-CH OUT
010-3
IC154 MIC AMP
Q156 MIC POWER
+9V
Q157
Q155
IC153 L-CH AMP
RV151 REC LEVEL L
IC152 L-CH BUFFER
L-CH OUT
010-4
Q158, 159
Q153
Q154
(See Page 189)
FB-169(1/3)
002-3 R-CH IN
002-4 L-CH IN
IC003 AMP
STD AU OUT
R-CH OUT 007-7
L-CH OUT 007-6
007-1
AFM/PCM AUDIO (MB-19)
R-CH OUT 004-3
L-CH OUT 004-1
008-3
008-1
008-4
AFM/PCM AUDIO (MB-19)
007-4 L-CH IN (PCM)
IC004 PCM L-CH AMP
Q001
Q002 MODE CONT
IC005(1/2)
PCM
MIX
STD
B
A
Q004
AFM MUTE
Q005 JOG CONT
JOG CONT
Q006
IC006 L-CH AMP
Q007
LINE OUT L-CH 001-5
503-5
J501 AUDIO OUT
L
R
007-9 R-CH IN (PCM)
PCM MUTE
Q051
IC054(1/2) PCM R-CH AMP
Q052 MODE CONT
IC055(1/2)
Q054
AFM MUTE
Q055 JOG CONT
JOG CONT
Q056
IC056 R-CH AMP
Q057
LINE OUT R-CH 001-7
503-7
OUTPUT SW A
OUTPUT SW B
MODE
D MUTE
MUTE CONT
AFM MUTE
Q053
IC004 AMP
Q003
IC054(2/2) AMP
IC006 MONO L AMP
IC056 MONO R AMP
Q008
MUTE CONT
LINE MONO OUT 001-8
503-9
504-5
301-5
J301 AUDIO OUT
JB-4
JB-5
(See Page 172)
FUNCTION CONTROL (FB-169)
(See Page 189)
007-3 STD AU IN
L-CH OUT 006-2 NO USE
R-CH OUT 006-4 NO USE
S011 AUDIO OUTPUT SELECT
PCM
MIX
STD
FB-169
007-1
007-2
006-1 OUTPUT SW B
006-2 OUTPUT SW A
OUTPUT SW B
OUTPUT SW A
Q165-169,172,182-184
LINE MUTE CONT
POWER ON
904-5 A MUTE
LINE MUTE 004-4
LINE MUTE 008-5 NO USE
IC165(1/2) Q181
IC165(1/2) Q176,179,180
D MUTE
Q186 PCM MUTE
Q188 AFM MUTE
005-4 PCM MUTE IN
005-5 AFM MUTE IN
Q174
Q175
005-1 MODE
Q170,171 LEVEL SHIFT
MODE
005-7 JOG AU MUTE
Q177,178 LEVEL SHIFT
JOG CONT
AFM/PCM AUDIO (MB-19)
FUNCTION CONTROL (FB-169)
POWER (POWER BLOCK)
101-10 REG 9V
102-7 REG 9V ANA
104-3 REG 9V OUT
101-7 REG -9V
102-9 REG -9V ANA
F108
F103
Q010, IC051(1/2) +7V REG
+7V
Q060, IC051(2/2) -7V REG
-7V
Q011, 061 POWER ON DELAY
IC005(1/2) STD ON
IC005(1/2) PCMON
OUTPUT SW B
OUTPUT SW A
(See Page 152, 165, 170, 183)
IF-20(2/2)
EVO-9500A


Q162
IC153
RV152
REC LEVEL R
IC152
R-CH AMP
R-CH BUFFER
R-CH OUT
010-3
IC154
MIC AMP
Q156
Q155
RV151
REC LEVEL L
L-CH AMP
L-CH BUFFER
L-CH OUT
010-4
Q153
Q154
(See Page 189)
FB-169(1/3)
002-3
R-CH IN
002-4
L-CH IN
IC003
AMP
R-CH OUT
L-CH OUT
STD AU OUT
007-7
007-6
007-1
AFM/PCM AUDIO (MB-19)
004-3
004-1
IC005(1/2)
Q005
JOG CONT
JOG CONT
Q006
IC006
L-CH AMP
Q007
LINE OUT L-CH
001-5
IC055(1/2)
Q055
JOG CONT
JOG CONT
Q056
IC056
R-CH AMP
Q057
LINE OUT R-CH
001-7
OUTPUT SW A
OUTPUT SW B
D MUTE
MUTE CONT
IC006
MONO L AMP
IC056
MONO R AMP
LINE MONO OUT
Q008
MUTE CONT
001-9
006-2
006-4
NO USE
NO USE
004-4
LINE MUTE
008-5
NO USE
IC165(1/2)
Q176,179,180
D MUTE
Q186
PCM MUTE
Q188
AFM MUTE
IC005(1/2)
STD ON
IC005(1/2)
PCMON
(See Page 152, 165, 170, 183)
IF-20(2/2)
EVO-9500A
503-5
503-7
503-9
504-5
301-5
L
R
J506
AUDIO OUT
J301
AUDIO OUT
JB-4
(See Page 172)
JB-5
(See Page 172)
008-3
009-1
008-4
101-2
101-1
LEVEL METER UNIT
RV101
PHONE LEVEL
IC101
R-CH HP AMP
IC101
L-CH HP AMP
IC102
MUTE CONT
Q106
Q105
LINE MUTE
Q101
009-3
009-2
201-3
201-2
J201
HEADPHONES
HE-2
(See Page 191)
(See Page 189)
FB-169 (2/3)


Q202
9V REG
RV201
REG 9V
9V REG
Q201
9V ON/OFF SWITCH
L201
LPF
DAIVE 9V
REG 9V
SERVO, FUN MOTOR (M907)
VIDEO, AUDIO
Q204
5V REG
RV202
REG 5V
5V REG
Q203
5V ON/OFF SWITCH
L202
LPF
REG +5V
DIGITAL 5V
VIDEO, AUDIO, SERVO, SYSTEM CONTROL
FUNCTION CONTROL, SERVO, SYSTEM CONTROL
Q205
POWER ON
POWER ON FUNCTION CONTROL (FB-169)
POWER ON SYSTEM CONTROL (SE-10)
L203
LPF
UNSW 5V
FUNCTTION CONTROL, SYSTEM CONTROL
IC204
-9V REG
Q207
-9V SWITCH
REG -9V
AUDIO
PC201
①
②
③
④

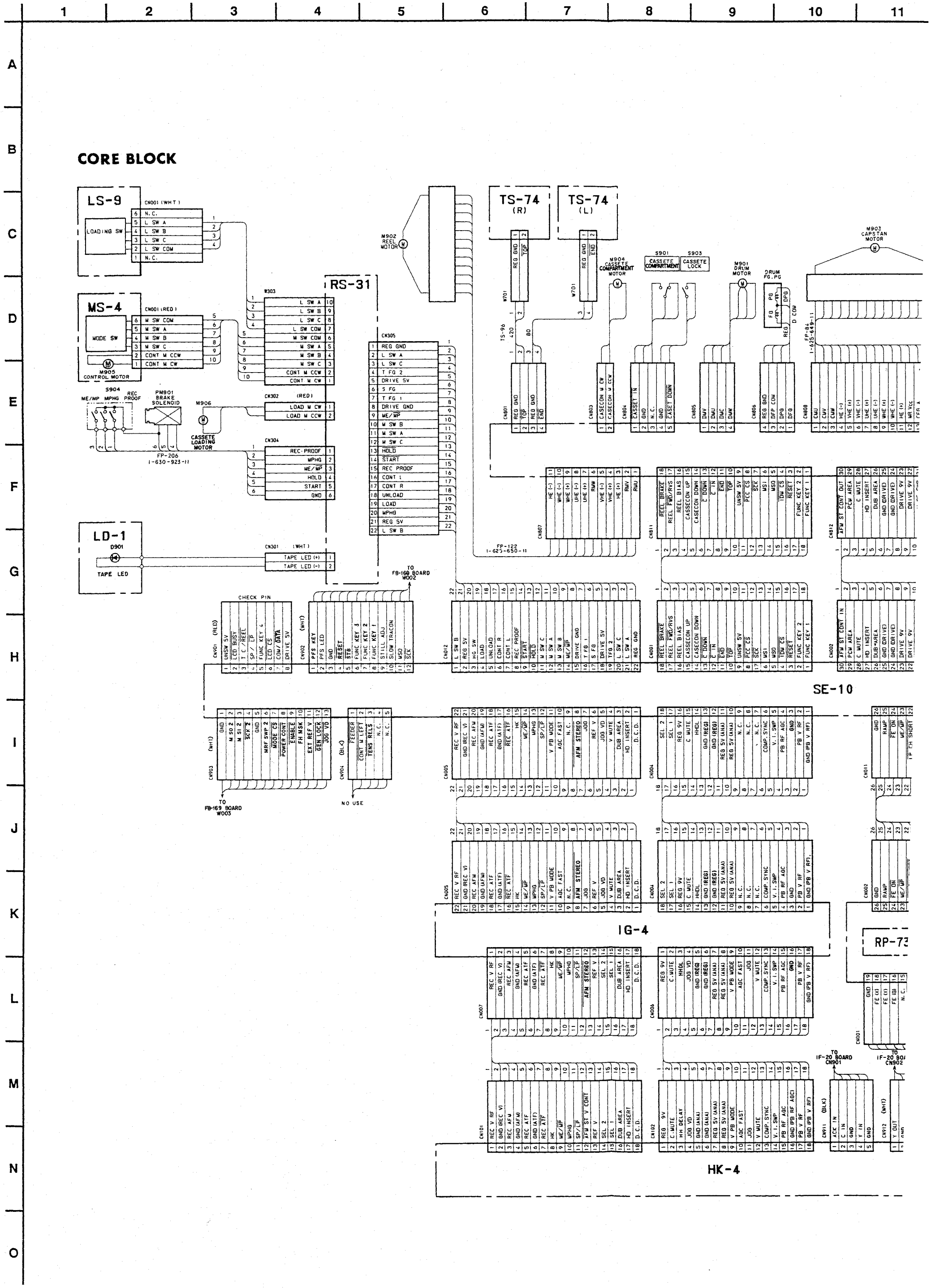
3-28. POWER BLOCK DIAGRAM

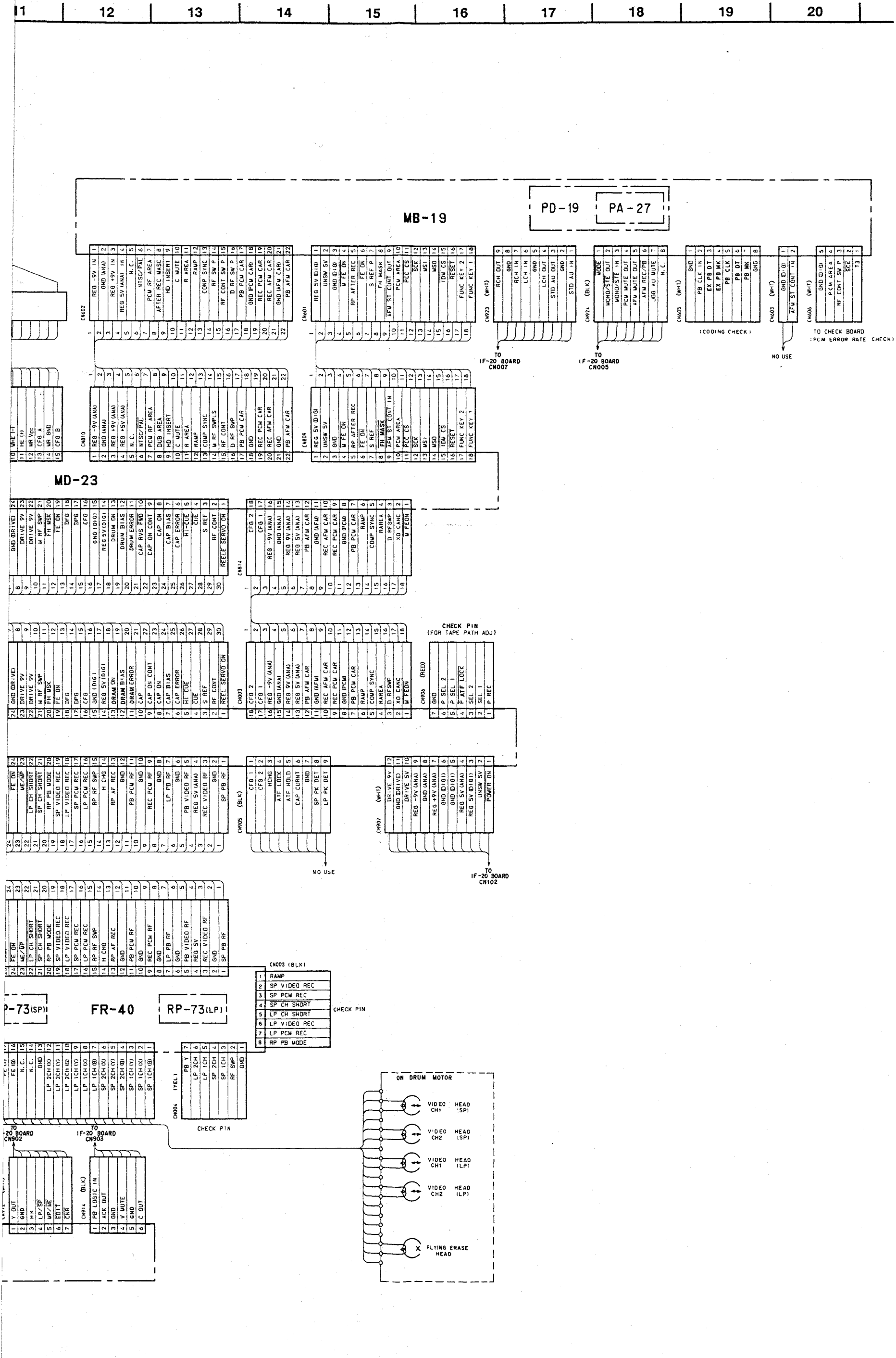

POWER BLOCK
(See Page 192)
AC IN
AC OUT
F101
L101
LINE FILTER
D101
RECT
Q101
SWITCHING
D103
Q102
DRIVE
D104, 105
RECT
PC101
D201
RECT
D202
RECT
IC201
D203
RECT
IC202
D205
RECT
IC203
SWITCHING REGULATOR OSC
RV203
UN SW 5V

SECTION 4

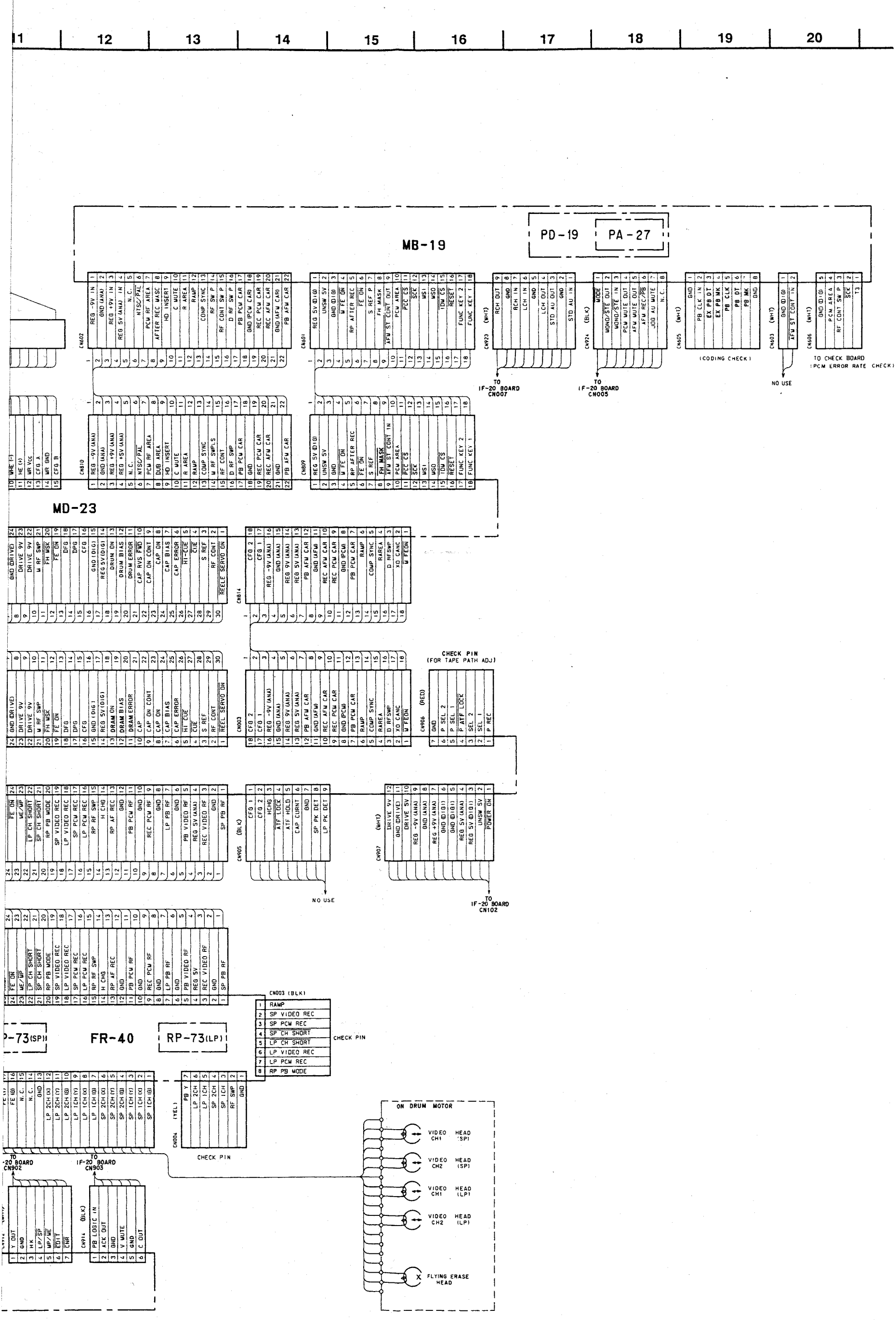
PRINTED WIRING AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM

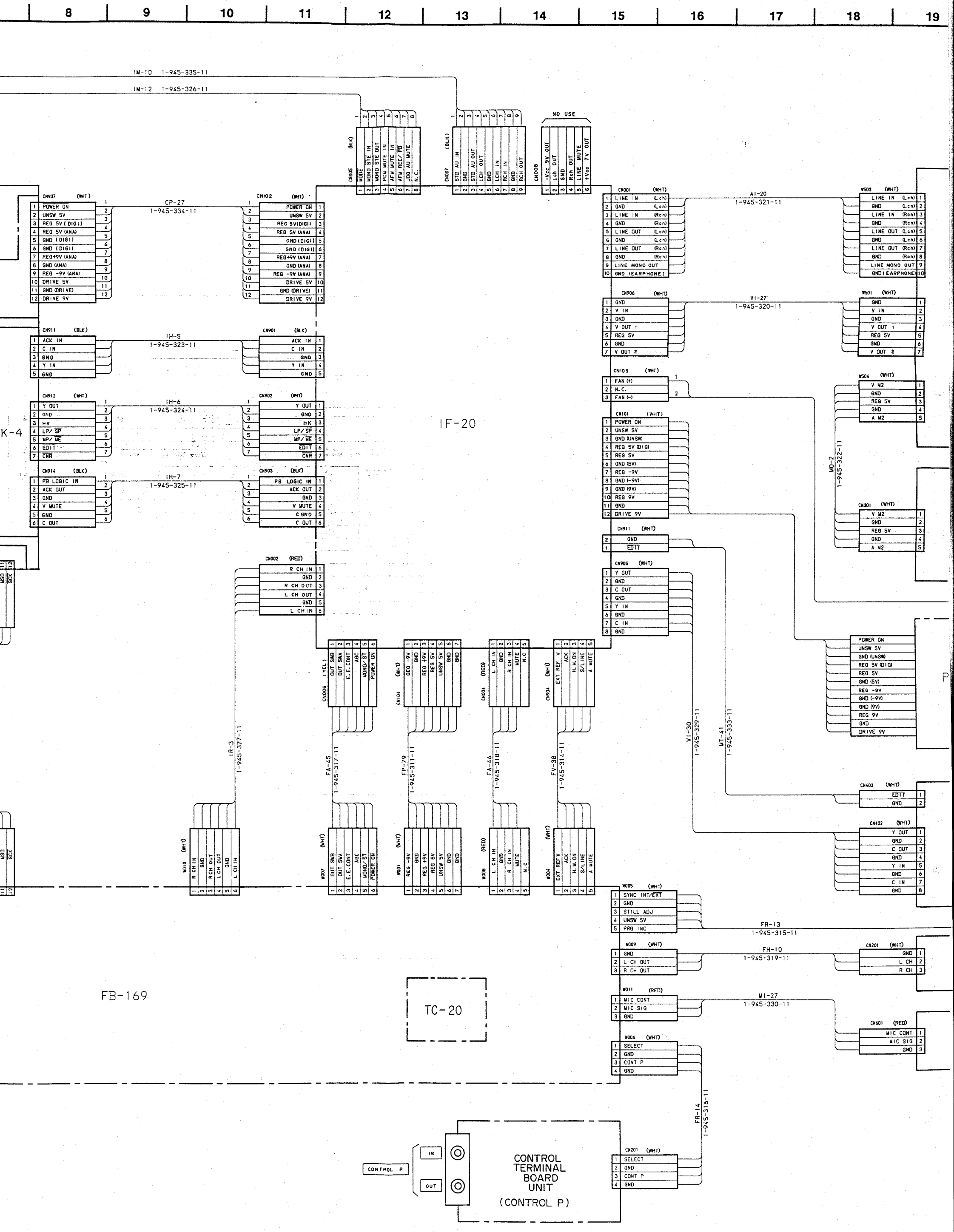

1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
CORE BLOCK
LS-9
LOADING SW
MS-4
MODE SW
M905 CONTROL MOTOR
S904 ME/MP MPHG REC PROOF
PM901 BRAKE SOLENOID
M906
CASSETE LOADING MOTOR
FP-206 1-630-923-11
LD-1
D901
TAPE LED
RS-31
CN305
CN302
CN304
CN301
M902 REEL MOTOR
TS-74 (R)
TS-74 (L)
W701
TS-96
M904 CASSETE COMPARTMENT MOTOR
S901 CASSETE COMPARTMENT
S903 CASSETE LOCK
M901 DRUM MOTOR
DRUM FG.PG
M903 CAPSTAN MOTOR
FP-84 1-625-649-11
FP-122 1-625-650-11
CHECK PIN
TO FB-169 BOARD W002
TO FB-169 BOARD W003
NO USE
SE-10
IG-4
RP-73
HK-4
TO IF-20 BOARD CN901
TO IF-20 BOARD CN902

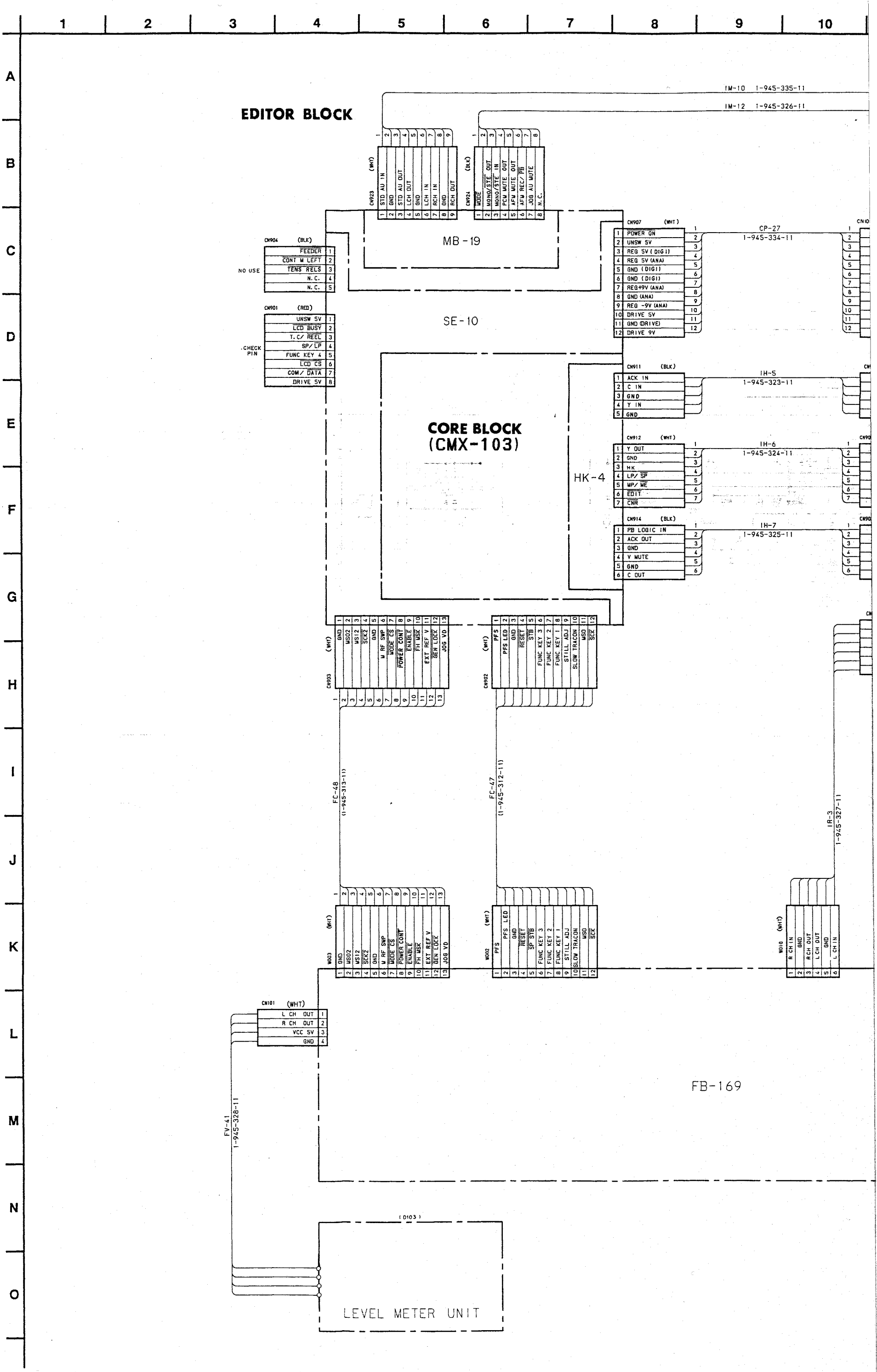

11
12
13
14
15
16
17
18
19
20
MB-19
PD-19
PA-27
MD-23
FR-40
P-73(SP)
RP-73(LP)
CN602
CN601
CN923 (WHT)
CN924 (BLK)
CN605 (WHT)
CN603 (WHT)
CN606 (WHT)
CN810
CN809
CN814
CN003
CN906 (RED)
CN905 (BLK)
CN907 (WHT)
CN004 (YEL)
CN914 (BLK)
CN912
TO IF-20 BOARD CN007
TO IF-20 BOARD CN005
(CODING CHECK)
NO USE
TO CHECK BOARD (PCM ERROR RATE CHECK)
CHECK PIN (FOR TAPE PATH ADJ)
NO USE
TO IF-20 BOARD CN102
CN003 (BLK)
1 RAMP
2 SP VIDEO REC
3 SP PCM REC
4 SP CH SHORT
5 LP CH SHORT
6 LP VIDEO REC
7 LP PCM REC
8 RP PB MODE
CHECK PIN
CHECK PIN
TO IF-20 BOARD CN902
TO IF-20 BOARD CN903
ON DRUM MOTOR
VIDEO HEAD CH1 (SP)
VIDEO HEAD CH2 (SP)
VIDEO HEAD CH1 (LP)
VIDEO HEAD CH2 (LP)
FLYING ERASE HEAD

FRAME FRAME


11
12
13
14
15
16
17
18
19
20
MB-19
PD-19
PA-27
CN602
CN601
CN923 (WHT)
CN924 (BLK)
CN605 (WHT)
CN603 (WHT)
CN606 (WHT)
TO IF-20 BOARD CN007
TO IF-20 BOARD CN005
(CODING CHECK)
NO USE
TO CHECK BOARD (PCM ERROR RATE CHECK)
MD-23
CN810
CN809
CN814
CN003
CN906 (RED)
CHECK PIN (FOR TAPE PATH ADJ)
CN905 (BLK)
CN907 (WHT)
NO USE
TO IF-20 BOARD CN102
CN003 (BLK)
RAMP
SP VIDEO REC
SP PCM REC
SP CH SHORT
LP CH SHORT
LP VIDEO REC
LP PCM REC
RP PB MODE
CHECK PIN
RP-73(SP)
FR-40
RP-73(LP)
CN004 (YEL)
CHECK PIN
TO IF-20 BOARD CN902
TO IF-20 BOARD CN903
CN914 (BLK)
ON DRUM MOTOR
VIDEO HEAD CH1 (SP)
VIDEO HEAD CH2 (SP)
VIDEO HEAD CH1 (LP)
VIDEO HEAD CH2 (LP)
FLYING ERASE HEAD

FRAME FRAME


8
9
10
11
12
13
14
15
16
17
18
19
IM-10 1-945-335-11
IM-12 1-945-326-11
CN005 (BLK)
1 MODE
2 MONO STE IN
3 MONO STE OUT
4 PCM MUTE IN
5 AFM MUTE IN
6 AFM REC/PB
7 JOG AU MUTE
8 N.C.
CN007 (BLK)
1 STD AU IN
2 GND
3 STD AU OUT
4 LCH OUT
5 GND
6 LCH IN
7 RCH IN
8 GND
9 RCH OUT
NO USE
CN008
1 -Vcc 9V OUT
2 Lch OUT
3 GND
4 Rch OUT
5 LINE MUTE
6 +Vcc 7V OUT
CN907 (WHT)
1 POWER ON
2 UNSW 5V
3 REG 5V (DIGI)
4 REG 5V (ANA)
5 GND (DIGI)
6 GND (DIGI)
7 REG+9V (ANA)
8 GND (ANA)
9 REG -9V (ANA)
10 DRIVE 5V
11 GND (DRIVE)
12 DRIVE 9V
CP-27
1-945-334-11
CN102 (WHT)
POWER ON 1
UNSW 5V 2
REG 5V(DIGI) 3
REG 5V (ANA) 4
GND (DIGI) 5
GND (DIGI) 6
REG+9V (ANA) 7
GND (ANA) 8
REG -9V (ANA) 9
DRIVE 5V 10
GND (DRIVE) 11
DRIVE 9V 12
CN911 (BLK)
1 ACK IN
2 C IN
3 GND
4 Y IN
5 GND
IH-5
1-945-323-11
CN901 (BLK)
ACK IN 1
C IN 2
GND 3
Y IN 4
GND 5
CN912 (WHT)
1 Y OUT
2 GND
3 HK
4 LP/SP
5 MP/ME
6 EDIT
7 CNR
IH-6
1-945-324-11
CN902 (WHT)
Y OUT 1
GND 2
HK 3
LP/SP 4
MP/ME 5
EDIT 6
CNR 7
K-4
CN914 (BLK)
1 PB LOGIC IN
2 ACK OUT
3 GND
4 V MUTE
5 GND
6 C OUT
IH-7
1-945-325-11
CN903 (BLK)
PB LOGIC IN 1
ACK OUT 2
GND 3
V MUTE 4
C GND 5
C OUT 6
IF-20
CN002 (RED)
R CH IN 1
GND 2
R CH OUT 3
L CH OUT 4
GND 5
L CH IN 6
WSO
SCK
CN001 (WHT)
1 LINE IN (Lch)
2 GND (Lch)
3 LINE IN (Rch)
4 GND (Rch)
5 LINE OUT (Lch)
6 GND (Lch)
7 LINE OUT (Rch)
8 GND (Rch)
9 LINE MONO OUT
10 GND (EARPHONE)
AI-20
1-945-321-11
W503 (WHT)
LINE IN (Lch) 1
GND (Lch) 2
LINE IN (Rch) 3
GND (Rch) 4
LINE OUT (Lch) 5
GND (Lch) 6
LINE OUT (Rch) 7
GND (Rch) 8
LINE MONO OUT 9
GND (EARPHONE) 10
CN906 (WHT)
1 GND
2 V IN
3 GND
4 V OUT 1
5 REG 5V
6 GND
7 V OUT 2
VI-27
1-945-320-11
W501 (WHT)
GND 1
V IN 2
GND 3
V OUT 1 4
REG 5V 5
GND 6
V OUT 2 7
CN103 (WHT)
1 FAN (+)
2 N.C.
3 FAN (-)
W504 (WHT)
V M2 1
GND 2
REG 5V 3
GND 4
A M2 5
CN101 (WHT)
1 POWER ON
2 UNSW 5V
3 GND (UNSW)
4 REG 5V (DIG)
5 REG 5V
6 GND (5V)
7 REG -9V
8 GND (-9V)
9 GND (9V)
10 REG 9V
11 GND
12 DRIVE 9V
MO-2
1-945-322-11
CN301 (WHT)
V M2 1
GND 2
REG 5V 3
GND 4
A M2 5
CN911 (WHT)
2 GND
1 EDIT
CN905 (WHT)
1 Y OUT
2 GND
3 C OUT
4 GND
5 Y IN
6 GND
7 C IN
8 GND
POWER ON
UNSW 5V
GND (UNSW)
REG 5V (DIG)
REG 5V
GND (5V)
REG -9V
GND (-9V)
GND (9V)
REG 9V
GND
DRIVE 9V
P
CN006 (YEL)
1 OUT SWB
2 OUT SWA
3 E.E.CONT
4 ABC
5 MONO/ST
6 POWER ON
CN104 (WHT)
1 REG -9V
2 GND
3 REG +9V
4 REG 5V
5 UNSW 5V
6 GND
7 GND
CN004 (RED)
1 L CH IN
2 GND
3 R CH IN
4 MUTE
5 N.C
CN904 (WHT)
1 EXT REF V
2 ACK
3 H.M.ON
4 S/LINE
5 A MUTE
IR-3
1-945-327-11
FA-45
1-945-317-11
FP-79
1-945-311-11
FA-46
1-945-318-11
FV-38
1-945-314-11
VI-30
1-945-329-11
MT-41
1-945-333-11
CN403 (WHT)
EDIT 1
GND 2
CN402 (WHT)
Y OUT 1
GND 2
C OUT 3
GND 4
Y IN 5
GND 6
C IN 7
GND 8
W010 (WHT)
1 R CH IN
2 GND
3 RCH OUT
4 LCH OUT
5 GND
6 L CH IN
W007 (WHT)
1 OUT SWB
2 OUT SWA
3 E.E.CONT
4 ABC
5 MONO/ST
6 POWER ON
W001 (WHT)
1 REG -9V
2 GND
3 REG +9V
4 REG 5V
5 UNSW 5V
6 GND
7 GND
W008 (RED)
1 L CH IN
2 GND
3 R CH IN
4 MUTE
5 N.C
W004 (WHT)
1 EXT REFV
2 ACK
3 H.M.ON
4 S/LINE
5 A MUTE
W005 (WHT)
1 SYNC INT/EXT
2 GND
3 STILL ADJ
4 UNSW 5V
5 PRG INC
FR-13
1-945-315-11
W009 (WHT)
1 GND
2 L CH OUT
3 R CH OUT
FH-10
1-945-319-11
CN201 (WHT)
GND 1
L CH 2
R CH 3
FB-169
TC-20
W011 (RED)
1 MIC CONT
2 MIC SIG
3 GND
MI-27
1-945-330-11
CN601 (RED)
MIC CONT 1
MIC SIG 2
GND 3
W006 (WHT)
1 SELECT
2 GND
3 CONT P
4 GND
FR-14
1-945-316-11
CONTROL P
IN
OUT
CONTROL
TERMINAL
BOARD
UNIT
(CONTROL P)
CN201 (WHT)
1 SELECT
2 GND
3 CONT P
4 GND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A
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C
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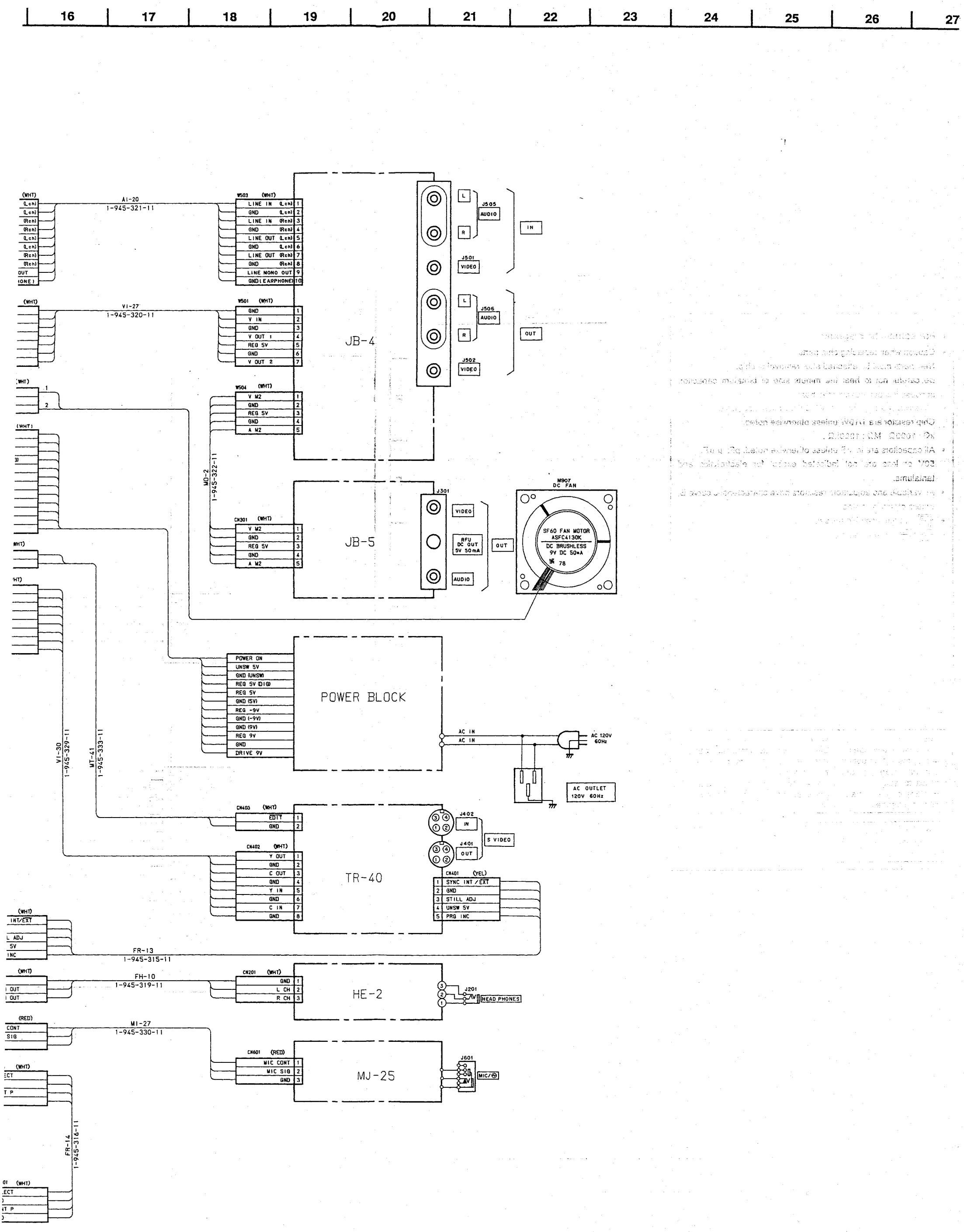
F
G
H
I
J
K
L
M
N
O
EDITOR BLOCK
IM-10 1-945-335-11
IM-12 1-945-326-11
CN923 (WHT)
1 STD AU IN
2 GND
3 STD AU OUT
4 LCH OUT
5 GND
6 LCH IN
7 RCH IN
8 GND
9 RCH OUT
CN924 (BLK)
1 MODE
2 MONO/STE OUT
3 MONO/STE IN
4 PCM MUTE OUT
5 AFM MUTE OUT
6 AFM REC/ PB
7 JOG AU MUTE
8 N.C.
MB-19
CN904 (BLK)
NO USE
FEEDER 1
CONT M LEFT 2
TENS RELS 3
N.C. 4
N.C. 5
CN901 (RED)
.CHECK PIN
UNSW 5V 1
LCD BUSY 2
T.C/ REEL 3
SP/ LP 4
FUNC KEY 4 5
LCD CS 6
COM/ DATA 7
DRIVE 5V 8
SE-10
CORE BLOCK
(CMX-103)
HK-4
CN907 (WHT)
1 POWER ON
2 UNSW 5V
3 REG 5V (DIGI)
4 REG 5V (ANA)
5 GND (DIGI)
6 GND (DIGI)
7 REG+9V (ANA)
8 GND (ANA)
9 REG -9V (ANA)
10 DRIVE 5V
11 GND (DRIVE)
12 DRIVE 9V
CP-27
1-945-334-11
CN10
CN911 (BLK)
1 ACK IN
2 C IN
3 GND
4 Y IN
5 GND
IH-5
1-945-323-11
CN912 (WHT)
1 Y OUT
2 GND
3 HK
4 LP/ SP
5 MP/ ME
6 EDIT
7 CNR
IH-6
1-945-324-11
CN90
CN914 (BLK)
1 PB LOGIC IN
2 ACK OUT
3 GND
4 V MUTE
5 GND
6 C OUT
IH-7
1-945-325-11
CN90
CN
CN903 (WHT)
1 GND
2 MSO2
3 MSI2
4 SCK2
5 GND
6 M RF SWP
7 MODE CS
8 POWER CONT
9 ENABLE
10 FH MSK
11 EXT REF V
12 GEN LOCK
13 JOG VD
CN902 (WHT)
1 PFS
2 PFS LED
3 GND
4 RESET
5 STB
6 FUNC KEY 3
7 FUNC KEY 2
8 FUNC KEY 1
9 STILL ADJ
10 SLOW TRACON
11 MSO
12 SCK
FC-48
(1-945-313-11)
FC-47
(1-945-312-11)
IR-3
1-945-327-11
W003 (WHT)
1 GND
2 MSO2
3 MSI2
4 SCK2
5 GND
6 M RF SWP
7 MODE CS
8 POWER CONT
9 ENABLE
10 FH MSK
11 EXT REF V
12 GEN LOCK
13 JOG VD
W002 (WHT)
1 PFS
2 PFS LED
3 GND
4 RESET
5 SP STB
6 FUNC KEY 3
7 FUNC KEY 2
8 FUNC KEY 1
9 STILL ADJ
10 SLOW TRACON
11 MSO
12 SCK
W010 (WHT)
1 R CH IN
2 GND
3 RCH OUT
4 L CH OUT
5 GND
6 L CH IN
CN101 (WHT)
L CH OUT 1
R CH OUT 2
VCC 5V 3
GND 4
FB-169
FV-41
1-945-328-11
(D103)
LEVEL METER UNIT


16
17
18
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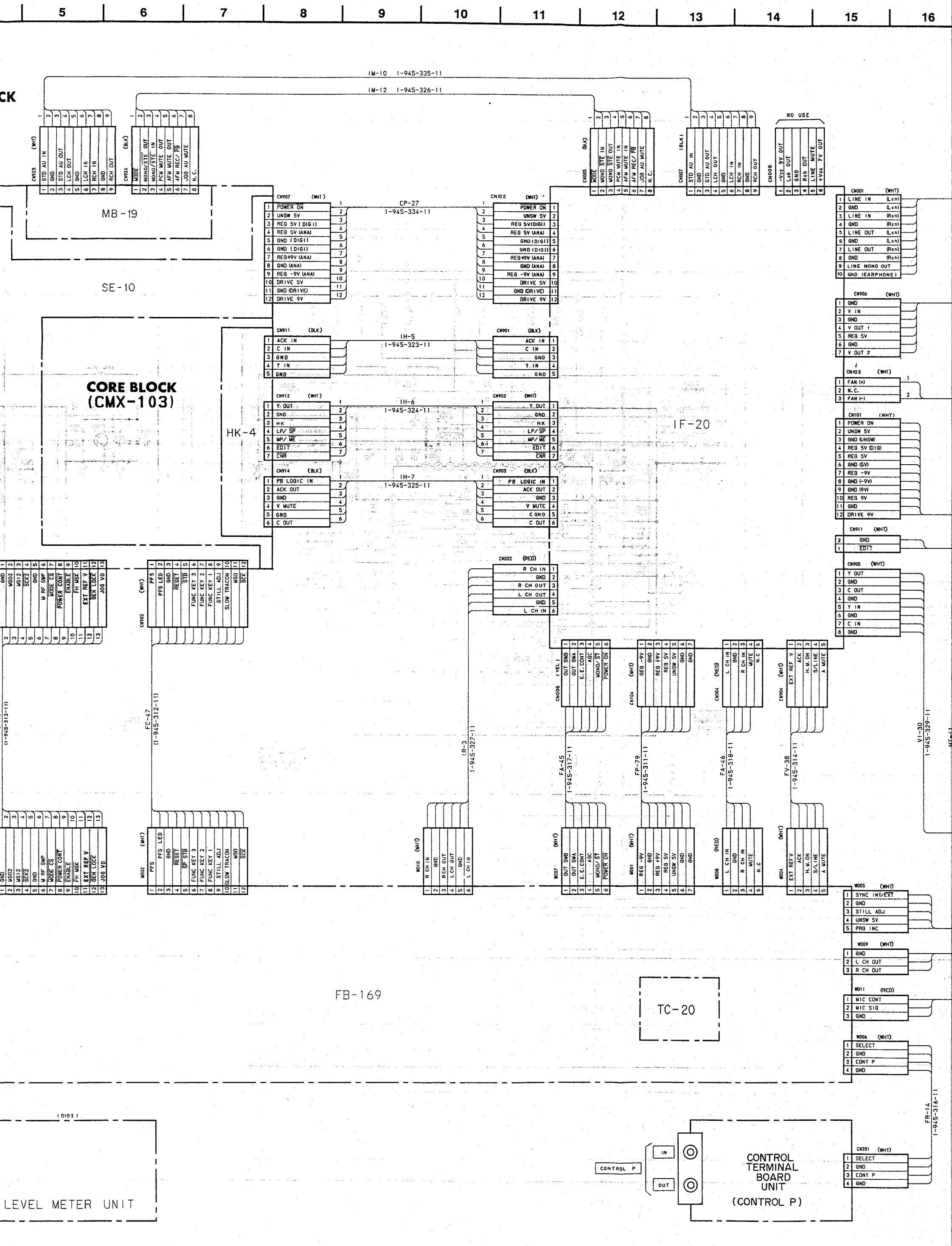
21
22
23
24
25
26
27
(WHT)
(Lch)
(Lch)
(Rch)
(Rch)
(Lch)
(Lch)
(Rch)
(Rch)
OUT
ONE)
AI-20
1-945-321-11
W503 (WHT)
LINE IN (Lch) 1
GND (Lch) 2
LINE IN (Rch) 3
GND (Rch) 4
LINE OUT (Lch) 5
GND (Lch) 6
LINE OUT (Rch) 7
GND (Rch) 8
LINE MONO OUT 9
GND(EARPHONE) 10
L
R
J505
AUDIO
IN
J501
VIDEO
L
R
J506
AUDIO
OUT
J502
VIDEO
(WHT)
VI-27
1-945-320-11
W501 (WHT)
GND 1
V IN 2
GND 3
V OUT 1 4
REG 5V 5
GND 6
V OUT 2 7
JB-4
(WHT)
1
2
W504 (WHT)
V M2 1
GND 2
REG 5V 3
GND 4
A M2 5
(WHT)
MO-2
1-945-322-11
CN301 (WHT)
V M2 1
GND 2
REG 5V 3
GND 4
A M2 5
JB-5
J301
VIDEO
RFU DC OUT 5V 50mA
AUDIO
OUT
M907
DC FAN
SF60 FAN MOTOR
ASFC4130K
DC BRUSHLESS
9V DC 50mA
78
(WHT)
(WHT)
POWER ON
UNSW 5V
GND (UNSW)
REG 5V (DIG)
REG 5V
GND (5V)
REG -9V
GND (-9V)
GND (9V)
REG 9V
GND
DRIVE 9V
POWER BLOCK
AC IN
AC IN
AC 120V 60Hz
AC OUTLET 120V 60Hz
VI-30
1-945-329-11
MT-41
1-945-333-11
CN403 (WHT)
EDIT 1
GND 2
J402
IN
J401
OUT
S VIDEO
CN402 (WHT)
Y OUT 1
GND 2
C OUT 3
GND 4
Y IN 5
GND 6
C IN 7
GND 8
TR-40
CN401 (YEL)
1 SYNC INT/EXT
2 GND
3 STILL ADJ
4 UNSW 5V
5 PRG INC
(WHT)
INT/EXT
L ADJ
5V
INC
FR-13
1-945-315-11
(WHT)
OUT
OUT
FH-10
1-945-319-11
CN201 (WHT)
GND 1
L CH 2
R CH 3
HE-2
J201
HEAD PHONES
(RED)
CONT
SIG
MI-27
1-945-330-11
CN601 (RED)
MIC CONT 1
MIC SIG 2
GND 3
MJ-25
J601
MIC/⊕
(WHT)
ECT
T P
FR-14
1-945-316-11
01 (WHT)
ECT
T P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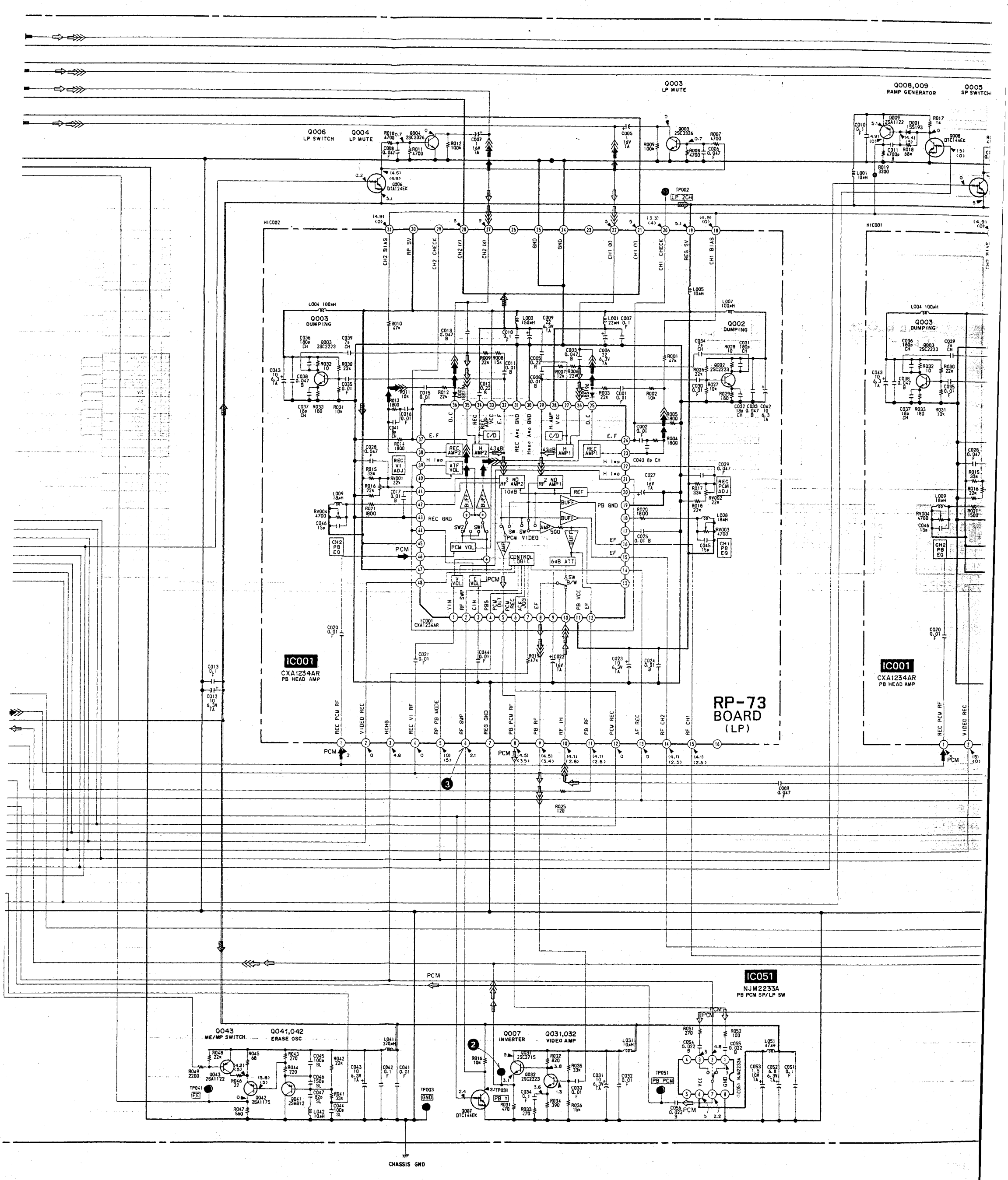
14
15
16
IM-10 1-945-335-11
IM-12 1-945-326-11
CK
CN923 (WHT)
STD AU IN
GND
STD AU OUT
LCH OUT
GND
LCH IN
RCH IN
GND
RCH OUT
CN924 (BLK)
MODE
MONO/STE OUT
MONO/STE IN
PCM MUTE OUT
AFM MUTE OUT
AFM REC/PB
JOG AU MUTE
N.C.
MB-19
SE-10
CORE BLOCK
(CMX-103)
HK-4
CN907 (WHT)
POWER ON
UNSW 5V
REG 5V (DIGI)
REG 5V (ANA)
GND (DIGI)
GND (DIGI)
REG+9V (ANA)
GND (ANA)
REG -9V (ANA)
DRIVE 5V
GND (DRIVE)
DRIVE 9V
CP-27
1-945-334-11
CN102 (WHT)
CN911 (BLK)
ACK IN
C IN
GND
Y IN
GND
IH-5
1-945-323-11
CN901 (BLK)
CN912 (WHT)
Y OUT
GND
HK
LP/SP
MP/ME
EDIT
CNR
IH-6
1-945-324-11
CN902 (WHT)
CN914 (BLK)
PB LOGIC IN
ACK OUT
GND
V MUTE
GND
C OUT
IH-7
1-945-325-11
CN903 (BLK)
C GND
IF-20
CN005 (BLK)
MODE
MONO STE IN
MONO STE OUT
PCM MUTE IN
AFM MUTE IN
AFM REC/PB
JOG AU MUTE
N.C.
CN007 (BLK)
STD AU IN
GND
STD AU OUT
LCH OUT
GND
LCH IN
RCH IN
GND
RCH OUT
NO USE
CN008
-Vcc 9V OUT
Lch OUT
GND
Rch OUT
LINE MUTE
+Vcc 7V OUT
CN001 (WHT)
LINE IN (Lch)
GND (Lch)
LINE IN (Rch)
GND (Rch)
LINE OUT (Lch)
GND (Lch)
LINE OUT (Rch)
GND (Rch)
LINE MONO OUT
GND (EARPHONE)
CN906 (WHT)
GND
V IN
GND
V OUT 1
REG 5V
GND
V OUT 2
CN103 (WHT)
FAN (+)
N.C.
FAN (-)
CN101 (WHT)
POWER ON
UNSW 5V
GND (UNSW)
REG 5V (DIG)
REG 5V
GND (5V)
REG -9V
GND (-9V)
GND (9V)
REG 9V
GND
DRIVE 9V
CN911 (WHT)
GND
EDIT
CN905 (WHT)
Y OUT
GND
C OUT
GND
Y IN
GND
C IN
GND
CN002 (RED)
R CH IN
GND
R CH OUT
L CH OUT
GND
L CH IN
CN006 (YEL)
OUT SWB
OUT SWA
E.E.CONT
AGC
MONO/ST
POWER ON
CN104 (WHT)
REG -9V
GND
REG +9V
REG 5V
UNSW 5V
GND
GND
CN004 (RED)
L CH IN
GND
R CH IN
MUTE
N.C
CN904 (WHT)
EXT REF V
ACK
H.M.ON
S/LINE
A MUTE
GND
MS02
MS12
SCK2
GND
M RF SWP
MODE CS
POWER CONT
ENABLE
FH MSK
EXT REF V
GEN LOCK
JOG VD
CN902 (WHT)
PFS
PFS LED
GND
RESET
STB
FUNC KEY 3
FUNC KEY 2
FUNC KEY 1
STILL ADJ
SLOW TRACON
MSO
SCK
(1-945-313-11)
FC-47
(1-945-312-11)
IR-3
1-945-327-11
FA-45
1-945-317-11
FP-79
1-945-311-11
FA-46
1-945-318-11
FV-38
1-945-314-11
VI-30
1-945-329-11
W002 (WHT)
SP STB
W010 (WHT)
R CH IN
GND
RCH OUT
L CH OUT
GND
L CH IN
W007 (WHT)
W001 (WHT)
W008 (RED)
W004 (WHT)
W005 (WHT)
SYNC INT/EXT
GND
STILL ADJ
UNSW 5V
PRG INC
W009 (WHT)
GND
L CH OUT
R CH OUT
W011 (RED)
MIC CONT
MIC SIG
GND
W006 (WHT)
SELECT
GND
CONT P
GND
FB-169
TC-20
FR-14
1-945-316-11
(D103)
LEVEL METER UNIT
CONTROL P
IN
OUT
CONTROL
TERMINAL
BOARD
UNIT
(CONTROL P)
CN201 (WHT)
SELECT
GND
CONT P
GND

ries, RP-73(LP) BOARD: 3000 series —


Q006
LP SWITCH
Q004
LP MUTE
Q003
LP MUTE
Q008,009
RAMP GENERATOR
Q005
SP SWITCH
TP002
LP 2CH
HIC002
HIC001
CH2 BIAS
RP 5V
CH2 CHECK
CH2 (Y)
CH2 (X)
GND
CH1 (X)
CH1 (Y)
CH1 CHECK
REG 5V
CH1 BIAS
Q003
DUMPING
Q002
DUMPING
PCM
REC GND
CONTROL LOGIC
6dB ATT
PB GND
H AMP1
H AMP2
REC AMP1
REC AMP2
IC001
CXA1234AR
PB HEAD AMP
RP-73
BOARD
(LP)
REC PCM RF
VIDEO REC
HCHG
REC VI RF
RP PB MODE
RF SWP
REG GND
PB PCM RF
PB RF
RF IN
PB RF
PCM REC
AF REC
REC CH2
REC CH1
IC051
NJM2233A
PB PCM SP/LP SW
Q043
ME/MP SWITCH
Q041,042
ERASE OSC
Q007
INVERTER
Q031,032
VIDEO AMP
TP041
FE
TP003
GND
TP031
PB Y
TP051
PB PCM
CHASSIS GND

RINTED WIRING BOARDS AND
CHEMATIC DIAGRAMS

NOTE IS COMMON FOR PRINTED WIRING DS AND SCHEMATIC DIAGRAMS.
dition to this , the necessary note is printed in lock.)

printed wiring boards.

: indicated a lead wire mounted on the component side.
: indicated a lead wire mounted on the conductor side.
: Through hole.
: Parts mounted on the conductor side.
: Pattern from the side which enables seeing.
: Pattern of the rear side.
ed numbers refer to waveforms.

n:

n face side: uctor Side)	Parts on the pattern face side seen from the pattern face are indicated.
ace side: onent side)	Parts on the parts face side seen from the pattern face are indicated.

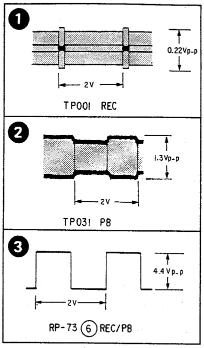
schematic diagrams.

ion when replacing chip parts.
parts must be attached after removal of chip.
areful not to heat the minuts side of tantalum capacitor, use it is damaged by the heat.
sistors are in ohms, 1/4W unless otherwise noted.
resistor are 1/10W unless otherwise noted.
1000Ω , MΩ : 1000kΩ .
apacitors are in μF unless otherwise noted. pF: μμF.
or less are not indicated except for electrolytics and lums.
ariable and adjustable resistors have characteristic curve B, ss otherwise noted.
: nonflammable resistor.
: fusible resistor.
: panel designation.
: internal component.
: adjustment for repeair.
: B+ Line.
: B– Line.
: IN/OUT direction of (+, –) B LINE.
ed numbers refer to waveforms.
ages are dc between ground and measurement points.
dings are taken with a color-bar signal input.
dings are taken with a digital multimeter (DC10MΩ).
ages are taken with a VOM (Input impedance 10MΩ).
age variations may be noted due to normal production ances.

components identi- y mark ⚠ or dotted with mark ⚠ are l for safty. ce only with part er specified.	**Note:** Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

indicating parts by refer- number, please include the l name.

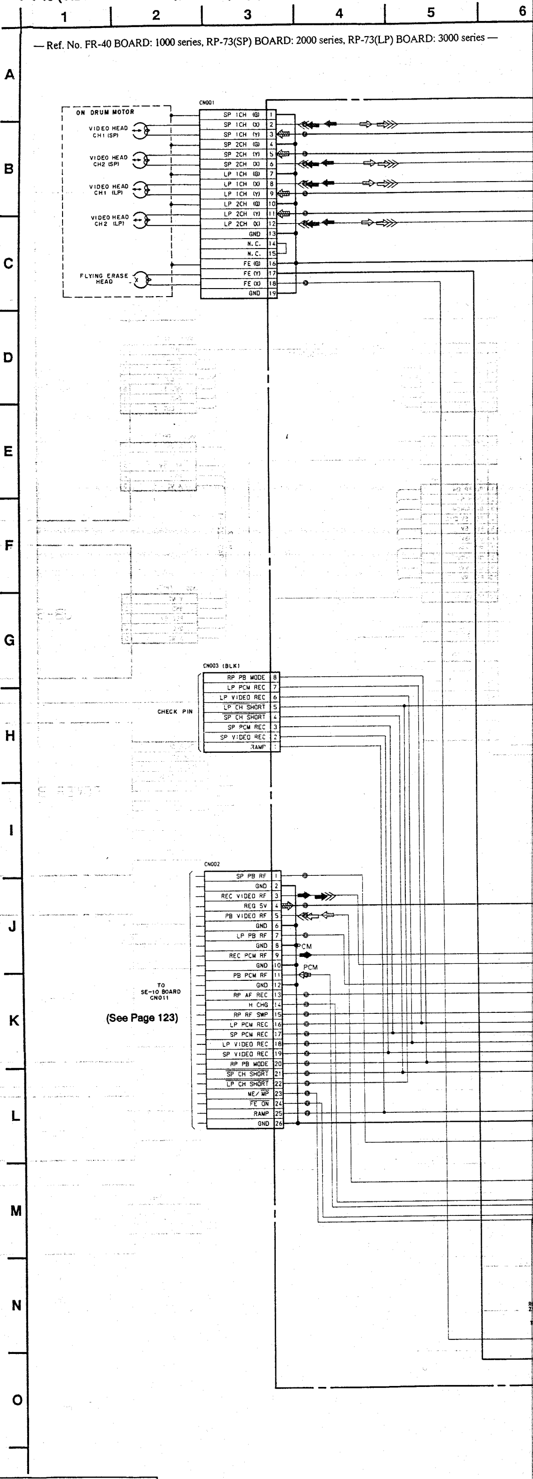
FR-40 BOARD


①
0.22Vp-p
2V
TP001 REC
②
1.3Vp-p
2V
TP031 PB
③
4.4Vp-p
2V
RP-73 ⑥ REC/PB

- **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC			➡»»	➡
PB			⇨»»	⇨

FR-40 (VIDEO HEAD AMP), RP-73 (SP) (HEAD AMP), RP-73 (LP) (HEAD AMP) SCHEMA


1
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5
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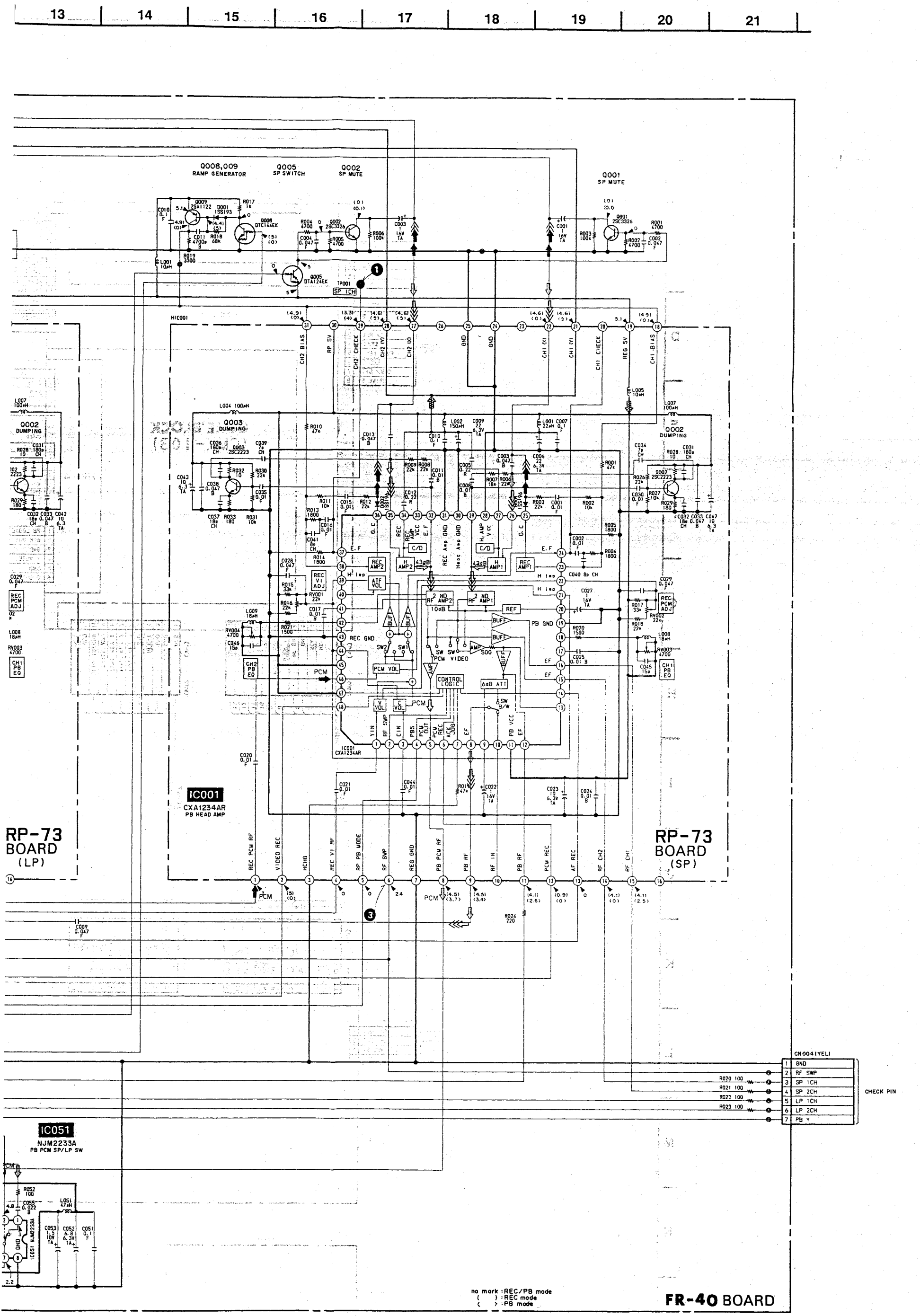
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
— Ref. No. FR-40 BOARD: 1000 series, RP-73(SP) BOARD: 2000 series, RP-73(LP) BOARD: 3000 series —
ON DRUM MOTOR
VIDEO HEAD CH1 (SP)
VIDEO HEAD CH2 (SP)
VIDEO HEAD CH1 (LP)
VIDEO HEAD CH2 (LP)
FLYING ERASE HEAD
CN001
SP 1CH (G) 1
SP 1CH (X) 2
SP 1CH (Y) 3
SP 2CH (G) 4
SP 2CH (Y) 5
SP 2CH (X) 6
LP 1CH (G) 7
LP 1CH (X) 8
LP 1CH (Y) 9
LP 2CH (G) 10
LP 2CH (Y) 11
LP 2CH (X) 12
GND 13
N.C. 14
N.C. 15
FE (G) 16
FE (Y) 17
FE (X) 18
GND 19
CN003 (BLK)
CHECK PIN
RP PB MODE 8
LP PCM REC 7
LP VIDEO REC 6
LP CH SHORT 5
SP CH SHORT 4
SP PCM REC 3
SP VIDEO REC 2
RAMP 1
CN002
TO SE-10 BOARD CN011
(See Page 123)
SP PB RF 1
GND 2
REC VIDEO RF 3
REG SV 4
PB VIDEO RF 5
GND 6
LP PB RF 7
GND 8
REC PCM RF 9
GND 10
PB PCM RF 11
GND 12
RP AF REC 13
H CHG 14
RP RF SWP 15
LP PCM REC 16
SP PCM REC 17
LP VIDEO REC 18
SP VIDEO REC 19
RP PB MODE 20
SP CH SHORT 21
LP CH SHORT 22
ME/MP 23
FE ON 24
RAMP 25
GND 26
PCM
PCM


13
14
15
16
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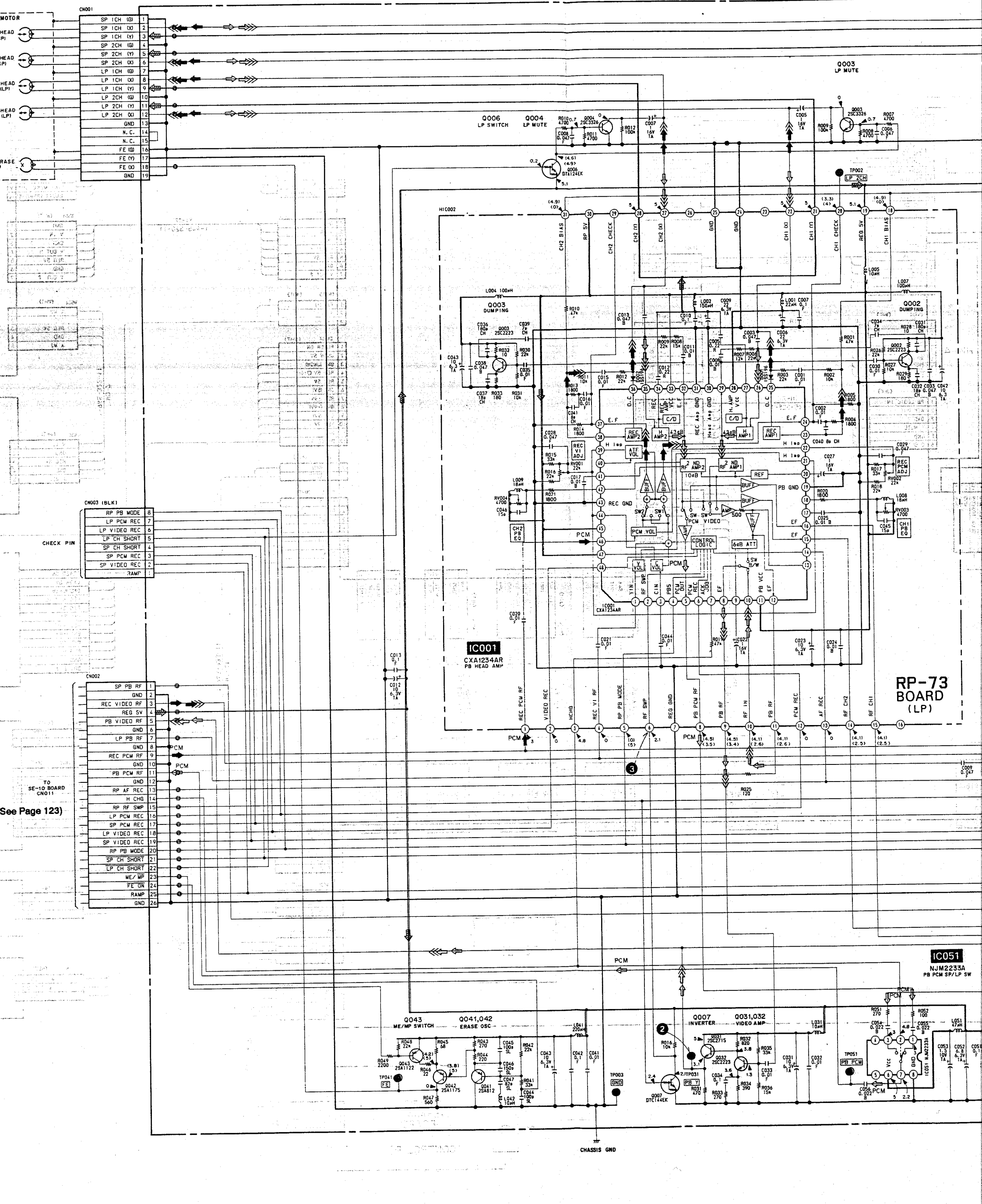
18
19
20
21
Q008,009 RAMP GENERATOR
Q005 SP SWITCH
Q002 SP MUTE
Q001 SP MUTE
TP001 SP 1CH
Q003 DUMPING
Q002 DUMPING
CH2 BIAS
RP 5V
CH2 CHECK
CH2 (Y)
CH2 (X)
GND
CH1 (X)
CH1 (Y)
CH1 CHECK
REG 5V
CH1 BIAS
REC PCM ADJ
CH1 PB EQ
CH2 PB EQ
REC VI ADJ
ATF VOL
PCM VOL
CONTROL LOGIC
6dB ATT
REF
IC001 CXA1234AR PB HEAD AMP
RP-73 BOARD (LP)
RP-73 BOARD (SP)
REC PCM RF
VIDEO REC
HCHG
REC VI RF
RP PB MODE
RF SWP
REG GND
PB PCM RF
PB RF
RF IN
PB RF
PCM REC
AF REC
RF CH2
RF CH1
CN004(YEL)
1 GND
2 RF SWP
3 SP 1CH
4 SP 2CH
5 LP 1CH
6 LP 2CH
7 PB Y
CHECK PIN
R020 100
R021 100
R022 100
R023 100
IC051 NJM2233A PB PCM SP/LP SW
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode
FR-40 BOARD

BOARD: 1000 series, RP-73(SP) BOARD: 2000 series, RP-73(LP) BOARD: 3000 series —


CN001
SP 1CH (G)
SP 1CH (X)
SP 1CH (Y)
SP 2CH (G)
SP 2CH (Y)
SP 2CH (X)
LP 1CH (G)
LP 1CH (X)
LP 1CH (Y)
LP 2CH (G)
LP 2CH (Y)
LP 2CH (X)
GND
N.C.
N.C.
FE (G)
FE (Y)
FE (X)
GND
MOTOR
HEAD
ERASE
Q003 LP MUTE
Q006 LP SWITCH
Q004 LP MUTE
TP002 LP 2CH
HIC002
CH2 BIAS
RP 5V
CH2 CHECK
CH2 (Y)
CH2 (X)
GND
CH1 (X)
CH1 (Y)
CH1 CHECK
REG 5V
CH1 BIAS
Q003 DUMPING
Q002 DUMPING
REC AMP2
H AMP2
H AMP1
REC AMP1
ATF VOL
REC V1 ADJ
REC PCM ADJ
CH2 PB EQ
CH1 PB EQ
PCM VOL
CONTROL LOGIC
6dB ATT
REF
BUFF
REC GND
PB GND
PCM
CN003 (BLK)
RP PB MODE
LP PCM REC
LP VIDEO REC
LP CH SHORT
SP CH SHORT
SP PCM REC
SP VIDEO REC
RAMP
CHECK PIN
IC001
CXA1234AR
PB HEAD AMP
CN002
SP PB RF
GND
REC VIDEO RF
REG 5V
PB VIDEO RF
GND
LP PB RF
GND
REC PCM RF
GND
PB PCM RF
GND
RP AF REC
H CHG
RP RF SWP
LP PCM REC
SP PCM REC
LP VIDEO REC
SP VIDEO REC
RP PB MODE
SP CH SHORT
LP CH SHORT
ME/MP
FE ON
RAMP
GND
TO SE-10 BOARD CN011
See Page 123)
REC PCM RF
VIDEO REC
HCHG
REC V1 RF
RP PB MODE
RF SWP
REG GND
PB PCM RF
PB RF
RF IN
PB RF
PCM REC
AF REC
RF CH2
RF CH1
RP-73
BOARD
(LP)
IC051
NJM2233A
PB PCM SP/LP SW
Q043 ME/MP SWITCH
Q041,042 ERASE OSC
Q007 INVERTER
Q031,032 VIDEO AMP
TP041 FE
TP003 GND
TP031 PB Y
TP051 PB PCM
CHASSIS GND

FR-40 (VIDEO HEAD AMP), RP-73 (SP) (HEAD AMP), RP-73 (LP) (HEAD AMP) PRINTED WIRING BOARDS

— Ref. No. FR-40 BOARD: 1000 series, RP-73(SP) BOARD: 2000 series, RP-73(LP) BOARD: 3000 series —

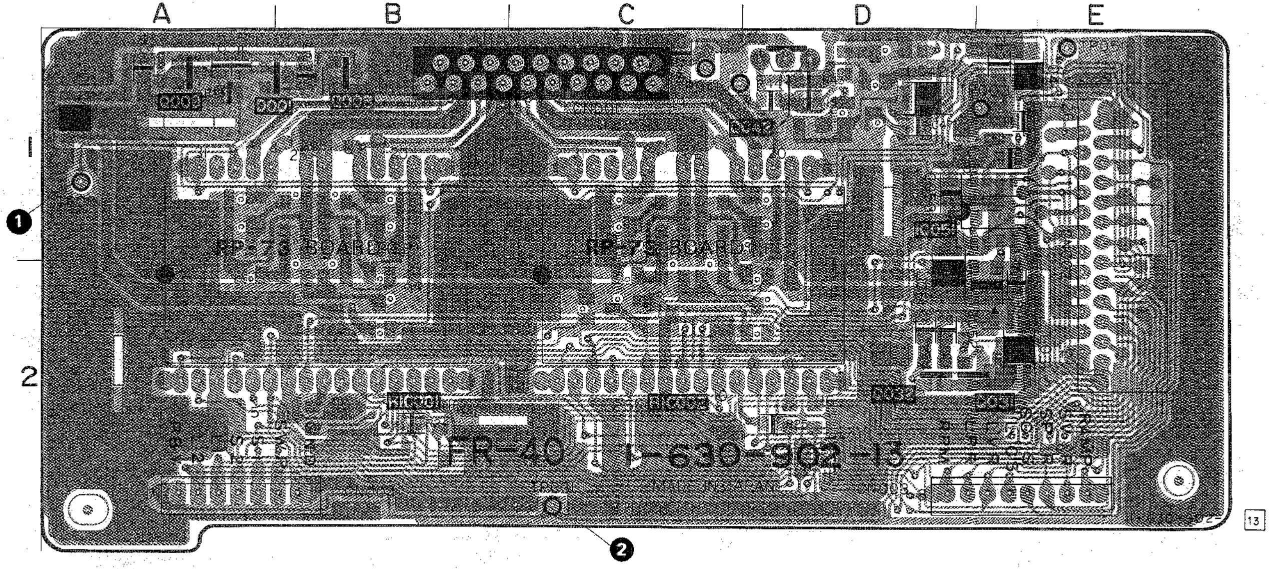
FR-40 BOARD (COMPONENT SIDE)

D001	A-1
IC051	D-1
Q008	B-1
Q009	A-1
Q031	E-2
Q032	D-2
Q042	D-1

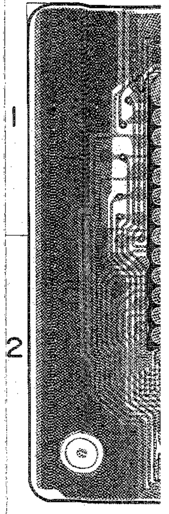
FR-40 BOARD (CONDUCTOR SIDE)

Q001	B-1
Q002	A-2
Q003	D-2
Q004	C-1
Q005	B-2
Q006	D-2
Q007	C-2
Q041	D-1
Q043	D-1

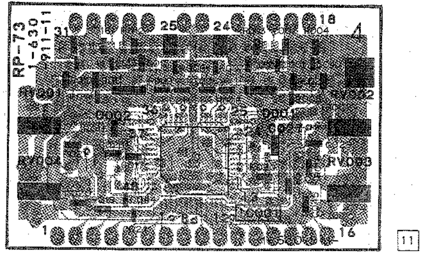
FR-40 BOARD (COMPONENT SIDE)


A
B
C
D
E
1
2
❶
❷
Q009
D001
Q008
CN001
Q032
IC051
RP-73 BOARD(SP)
RP-73 BOARD(LP)
RIC001
RIC002
Q031
Q042
FR-40 1-630-902-13
13

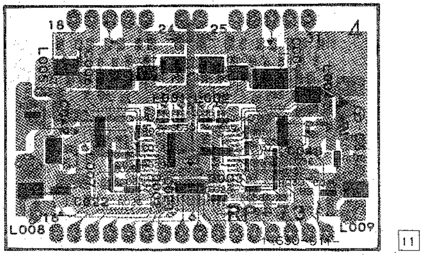
FR-40 BOA



RP-73 BOARD (SP), (LP) (COMPONENT SIDE)


RP-73
1-630-911-11
31
25
24
18
4
1
16
RV001
RV002
RV004
RV003
Q002
Q001
11

RP-73 BOARD (SP), (LP) (CONDUCTOR SIDE)


18
24
25
4
L008
L009
RP-73
11

A-7061-822-A RP-73 (SP) BOARD, COMPLETE
****

(DIODE)

D001	8-719-801-41	DIODE 1SS196
D002	8-719-801-41	DIODE 1SS196

(IC)

IC001	8-752-033-00	IC CXA1234AR

(TRANSISTOR)

Q002	8-729-102-07	TRANSISTOR 2SC2223-F13
Q003	8-729-102-07	TRANSISTOR 2SC2223-F13

A-7061-827-A RP-73 (LP) BOAR
****

(DIOD

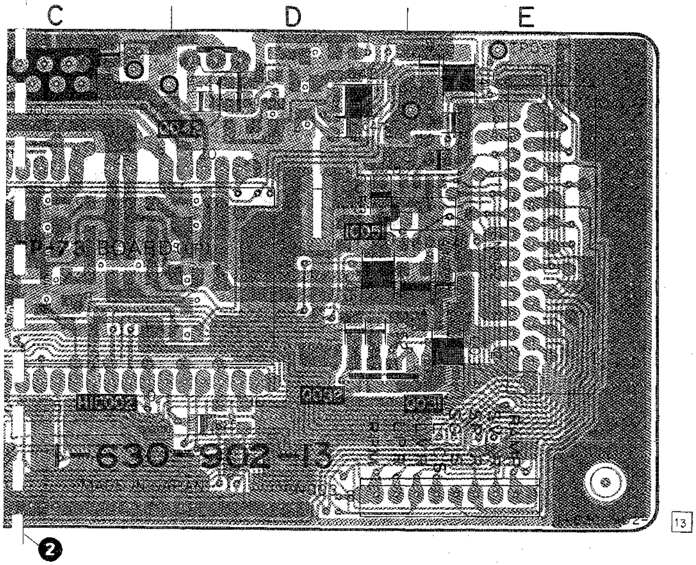
D001	8-719-801-41	DIODE
D002	8-719-801-41	DIODE

(IC)

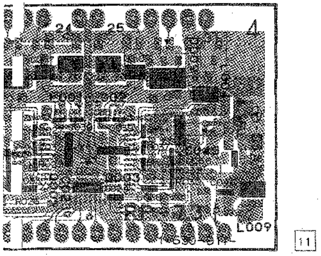
IC001	8-752-033-00	IC CX

(TRAN

Q002	8-729-102-07	TRANSI
Q003	8-729-102-07	TRANSI


C
D
E
1-630-902-13
❷
13

ARD (SP), (LP) (CONDUCTOR SIDE)


24
25
4
L009
11

A-7061-822-A RP-73 (SP) BOARD, COMPLETE
****

(DIODE)

D001	8-719-801-41	DIODE 1SS196
D002	8-719-801-41	DIODE 1SS196

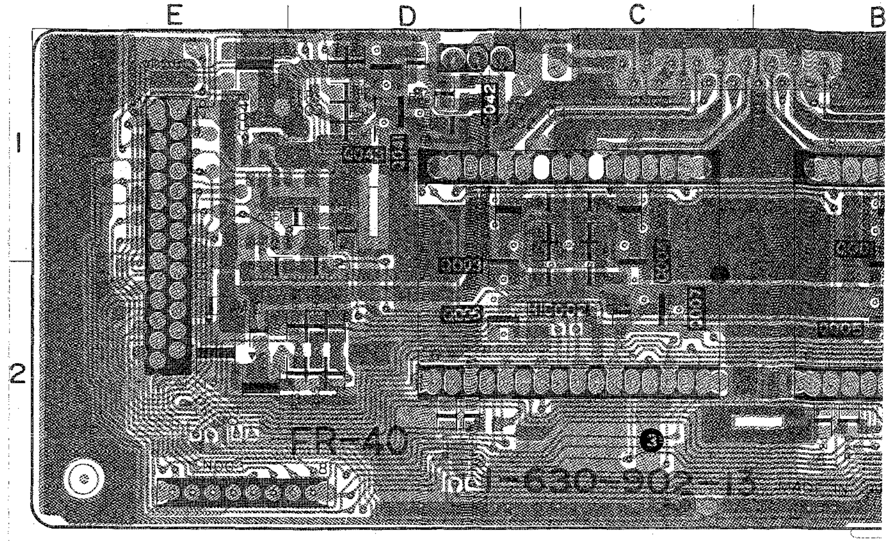
(IC)

IC001	8-752-033-00	IC CXA1234AR

(TRANSISTOR)

Q002	8-729-102-07	TRANSISTOR 2SC2223-F13
Q003	8-729-102-07	TRANSISTOR 2SC2223-F13

FR-40 BOARD (CONDUCTOR SIDE)


E
D
C
B
1
2
FR-40
1-630-902-13
❸

A-7061-827-A RP-73 (LP) BOARD, COMPLETE
****

(DIODE)

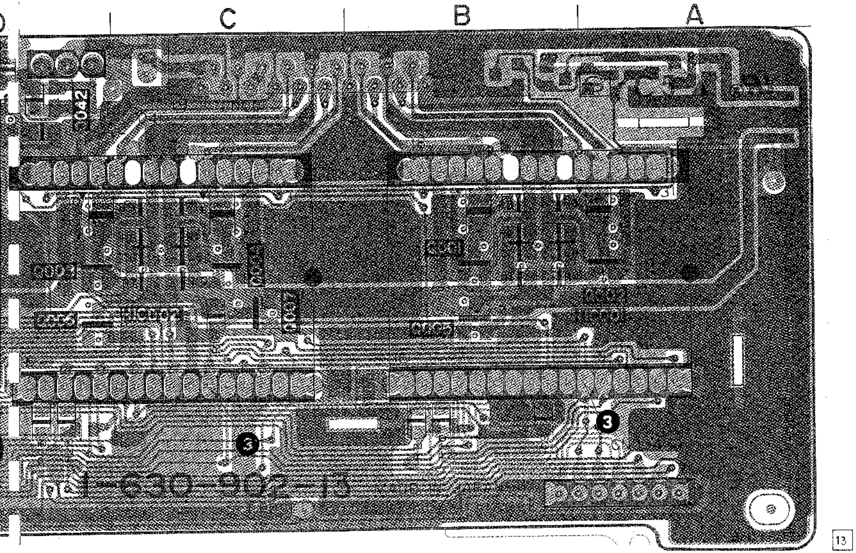
D001	8-719-801-41	DIODE 1SS196
D002	8-719-801-41	DIODE 1SS196

(IC)

IC001	8-752-033-00	IC CXA1234AR

(TRANSISTOR)

Q002	8-729-102-07	TRANSISTOR 2SC2223-F13
Q003	8-729-102-07	TRANSISTOR 2SC2223-F13



* A-7061-821-A FR-40 BOARD, COMPLETE
****

(DIODE)

D001	8-719-400-18	DIODE MA152WK

(IC)

IC051	8-759-710-09	IC NJM2233AM

(TRANSISTOR)

Q001	8-729-202-38	TRANSISTOR 2SC3326N
Q002	8-729-202-38	TRANSISTOR 2SC3326N
Q003	8-729-202-38	TRANSISTOR 2SC3326N
Q004	8-729-202-38	TRANSISTOR 2SC3326N
Q005	8-729-901-05	TRANSISTOR DTA124EK
Q006	8-729-901-05	TRANSISTOR DTA124EK
Q007	8-729-901-01	TRANSISTOR DTC144EK
Q008	8-729-901-01	TRANSISTOR DTC144EK
Q009	8-729-320-17	TRANSISTOR 2SA1122CD
Q031	8-729-201-27	TRANSISTOR 2SC2715
Q032	8-729-102-07	TRANSISTOR 2SC2223
Q041	8-729-216-22	TRANSISTOR 2SA1162
Q042	8-729-119-76	TRANSISTOR 2SA1175
Q043	8-729-320-17	TRANSISTOR 2SA1122CD

* A-7061-820-A HK-4 BOARD, COMPLETE
****

(DIODE)

D101	8-719-400-18	DIODE MA152WK
D102	8-719-400-18	DIODE MA152WK
D105	8-719-800-76	DIODE 1SS226
D106	8-719-400-18	DIODE MA152WK
D107	8-719-400-18	DIODE MA152WK
D108	8-719-400-18	DIODE MA152WK
D109	8-719-400-18	DIODE MA152WK
D301	8-719-400-18	DIODE MA152WK
D302	8-719-400-18	DIODE MA152WK
D401	8-719-400-18	DIODE MA152WK
D402	8-719-400-18	DIODE MA152WK
D403	8-719-400-18	DIODE MA152WK
D404	8-719-400-18	DIODE MA152WK
D405	8-719-400-18	DIODE MA152WK
D501	8-719-400-18	DIODE MA152WK
D701	8-719-104-34	DIODE 1S2836
D702	8-719-400-18	DIODE 1S2837
D801	8-719-400-18	DIODE 1S2837
D802	8-719-400-18	DIODE 1S2837
D803	8-719-104-34	DIODE 1S2836
D901	8-719-400-18	DIODE MA152WK

(IC)

IC101	8-759-233-94	IC TA8607F
IC102	8-759-925-60	IC BA401
IC299	8-759-239-58	IC TC74HC221AF
IC301	8-752-002-XX	IC CX20030
IC401	8-752-031-01	IC CXA1047M
IC501	8-752-003-12	IC CX20031
IC601	8-752-202-10	IC CX22021
IC602	8-752-003-22	IC CX20032
IC603	8-759-914-56	IC CX23054
IC701	8-752-322-24	IC CXL1008M
IC801	8-752-322-24	IC CXL1008M
IC851	8-759-710-05	IC NJM2238M
IC901	8-759-925-74	IC TC74HC04AF
IC902	8-759-925-74	IC TC74HC04AF

(TRANSISTOR)

Q101	8-729-102-07	TRANSISTOR 2SC2223
Q102	8-729-901-04	TRANSISTOR DTA114EK
Q103	8-729-102-07	TRANSISTOR 2SC2223
Q104	8-729-901-01	TRANSISTOR DTC144EK
Q105	8-729-904-07	TRANSISTOR FMG2-T-148
Q107	8-729-100-66	TRANSISTOR 2SC1623
Q110	8-729-901-01	TRANSISTOR DTC144EK
Q111	8-729-102-07	TRANSISTOR 2SC2223
Q112	8-729-901-01	TRANSISTOR DTC144EK
Q113	8-729-102-07	TRANSISTOR 2SC2223
Q116	8-729-102-07	TRANSISTOR 2SC2223
Q117	8-729-102-07	TRANSISTOR 2SC2223
Q118	8-729-102-07	TRANSISTOR 2SC2223
Q119	8-729-102-07	TRANSISTOR 2SC2223
Q120	8-729-102-07	TRANSISTOR 2SC2223
Q121	8-729-100-66	TRANSISTOR 2SC1623
Q122	8-729-901-01	TRANSISTOR DTC144EK
Q123	8-729-901-01	TRANSISTOR DTC144EK
Q124	8-729-901-06	TRANSISTOR DTA144EK
Q125	8-729-901-01	TRANSISTOR DTC144EK
Q126	8-729-100-66	TRANSISTOR 2SC1623
Q127	8-729-100-66	TRANSISTOR 2SC1623
Q128	8-729-102-07	TRANSISTOR 2SC2223
Q129	8-729-100-66	TRANSISTOR 2SC1623
Q130	8-729-907-26	TRANSISTOR IMX1
Q131	8-729-320-17	TRANSISTOR 2SA1122CD
Q132	8-729-202-38	TRANSISTOR 2SC3326N
Q181	8-729-907-46	TRANSISTOR IMZ1
Q182	8-729-903-10	TRANSISTOR FMW1
Q184	8-729-320-17	TRANSISTOR 2SA1122CD
Q201	8-729-102-07	TRANSISTOR 2SC2223
Q202	8-729-202-38	TRANSISTOR 2SC3326N
Q203	8-729-202-38	TRANSISTOR 2SC3326N
Q204	8-729-904-07	TRANSISTOR FMG2
Q206	8-729-122-63	TRANSISTOR 2SA1226
Q207	8-729-202-38	TRANSISTOR 2SC3326N
Q208	8-729-201-27	TRANSISTOR 2SC2715
Q209	8-729-201-27	TRANSISTOR 2SC2715
Q210	8-729-102-07	TRANSISTOR 2SC2223
Q211	8-729-102-07	TRANSISTOR 2SC2223
Q212	8-729-901-01	TRANSISTOR DTC144EK
Q213	8-729-901-06	TRANSISTOR DTA144EK
Q214	8-729-102-07	TRANSISTOR 2SC2223
Q215	8-729-902-96	TRANSISTOR FMS1
Q217	8-729-102-07	TRANSISTOR 2SC2223
Q218	8-729-102-07	TRANSISTOR 2SC2223
Q219	8-729-901-01	TRANSISTOR DTC144EK
Q299	8-729-901-06	TRANSISTOR DTA144EK
Q301	8-729-100-66	TRANSISTOR 2SC1623
Q302	8-729-100-66	TRANSISTOR 2SC1623
Q305	8-729-100-66	TRANSISTOR 2SC1623
Q306	8-729-100-66	TRANSISTOR 2SC1623
Q307	8-729-100-66	TRANSISTOR 2SC1623
Q309	8-729-100-66	TRANSISTOR 2SC1623
Q310	8-729-100-66	TRANSISTOR 2SC1623
Q311	8-729-100-66	TRANSISTOR 2SC1623
Q312	8-729-901-06	TRANSISTOR DTA144EK
Q313	8-729-320-17	TRANSISTOR 2SA1122CD
Q314	8-729-100-66	TRANSISTOR 2SC1623
Q315	8-729-100-66	TRANSISTOR 2SC1623
Q316	8-729-901-01	TRANSISTOR DTC144EK
Q317	8-729-100-66	TRANSISTOR 2SC1623
Q318	8-729-901-06	TRANSISTOR DTA144EK
Q319	8-729-100-66	TRANSISTOR 2SC1623
Q320	8-729-901-01	TRANSISTOR DTC144EK
Q321	8-729-901-01	TRANSISTOR DTC144EK
Q322	8-729-320-17	TRANSISTOR 2SA1122CD
Q323	8-729-901-01	TRANSISTOR DTC144EK
Q324	8-729-901-01	TRANSISTOR DTC144EK
Q325	8-729-901-06	TRANSISTOR DTA144EK
Q326	8-729-901-06	TRANSISTOR DTA144EK
Q328	8-729-100-66	TRANSISTOR 2SC1623
Q401	8-729-100-66	TRANSISTOR 2SC1623
Q402	8-729-100-66	TRANSISTOR 2SC1623
Q403	8-729-901-01	TRANSISTOR DTC144EK
Q404	8-729-901-01	TRANSISTOR DTC144EK
Q405	8-729-901-06	TRANSISTOR DTA144EK
Q406	8-729-100-66	TRANSISTOR 2SC1623
Q407	8-729-320-17	TRANSISTOR 2SA1122CD
Q408	8-729-320-17	TRANSISTOR 2SA1122CD
Q409	8-729-100-66	TRANSISTOR 2SC1623
Q410	8-729-320-17	TRANSISTOR 2SA1122CD
Q411	8-729-901-01	TRANSISTOR DTC144EK
Q412	8-729-901-01	TRANSISTOR DTC144EK
Q413	8-729-901-01	TRANSISTOR DTC144EK
Q414	8-729-100-66	TRANSISTOR 2SC1623
Q415	8-729-320-17	TRANSISTOR 2SA1122CD
Q416	8-729-320-17	TRANSISTOR 2SA1122CD
Q417	8-729-901-01	TRANSISTOR DTC144EK
Q418	8-729-100-66	TRANSISTOR 2SC1623
Q419	8-729-100-66	TRANSISTOR 2SC1623
Q420	8-729-202-38	TRANSISTOR 2SC3326N
Q421	8-729-202-38	TRANSISTOR 2SC3326N
Q422	8-729-100-66	TRANSISTOR 2SC1623
Q423	8-729-100-66	TRANSISTOR 2SC1623
Q424	8-729-901-01	TRANSISTOR DTC144EK
Q425	8-729-100-66	TRANSISTOR 2SC1623
Q426	8-729-100-66	TRANSISTOR 2SC1623
Q427	8-729-320-17	TRANSISTOR 2SA1122CD
Q428	8-729-320-17	TRANSISTOR 2SA1122CD
Q429	8-729-901-01	TRANSISTOR DTC144EK
Q430	8-729-901-01	TRANSISTOR DTC144EK
Q431	8-729-320-17	TRANSISTOR 2SA1122CD
Q501	8-729-901-06	TRANSISTOR DTA144EK
Q502	8-729-901-01	TRANSISTOR DTC144EK
Q503	8-729-901-00	TRANSISTOR DTC124EK
Q601	8-729-901-01	TRANSISTOR DTC144EK
Q603	8-729-901-01	TRANSISTOR DTC144EK
Q604	8-729-100-66	TRANSISTOR 2SC1623
Q605	8-729-100-66	TRANSISTOR 2SC1623
Q606	8-729-901-01	TRANSISTOR DTC144EK
Q607	8-729-100-66	TRANSISTOR 2SC1623
Q608	8-729-320-17	TRANSISTOR 2SA1122CD
Q701	8-729-901-01	TRANSISTOR DTC144EK
Q702	8-729-216-22	TRANSISTOR 2SA1162
Q703	8-729-216-22	TRANSISTOR 2SA1162
Q704	8-729-216-22	TRANSISTOR 2SA1162
Q705	8-729-320-17	TRANSISTOR 2SA1122CD
Q706	8-729-901-01	TRANSISTOR DTC144EK
Q707	8-729-901-01	TRANSISTOR DTC144EK
Q708	8-729-216-22	TRANSISTOR 2SA1162
Q709	8-729-216-22	TRANSISTOR 2SA1162
Q710	8-729-320-17	TRANSISTOR 2SA1122CD
Q801	8-729-901-01	TRANSISTOR DTC144EK
Q802	8-729-320-17	TRANSISTOR 2SA1122CD
Q803	8-729-216-22	TRANSISTOR 2SA1162
Q804	8-729-216-22	TRANSISTOR 2SA1162
Q805	8-729-216-22	TRANSISTOR 2SA1162
Q806	8-729-320-17	TRANSISTOR 2SA1122CD
Q807	8-729-901-01	TRANSISTOR DTC144EK
Q808	8-729-216-22	TRANSISTOR 2SA1162
Q809	8-729-216-22	TRANSISTOR 2SA1162
Q810	8-729-320-17	TRANSISTOR 2SA1122CD
Q811	8-729-901-01	TRANSISTOR DTC144EK
Q851	8-729-100-66	TRANSISTOR 2SC1623
Q852	8-729-100-66	TRANSISTOR 2SC1623
Q901	8-729-901-00	TRANSISTOR DTC124EK
Q902	8-729-901-01	TRANSISTOR DTC144EK
Q903	8-729-104-25	TRANSISTOR 2SB804-AV
Q904	8-729-100-66	TRANSISTOR 2SC1623

HK-4 (C VIDEO PROCESS, Y VIDEO PROCESS, Y/C/AFM MIX) PRINTED WIRING B

— Ref. No. HK-4 BOARD: 4000 series —

HK-4 BOARD (COMPONENT SIDE)

D404	D-2
D701	G-3
D803	G-6
D901	F-6
IC101	E-5
IC102	E-5
IC301	E-2
IC401	C-1
IC601	A-5
IC602	B-4
IC701	G-3
IC801	G-5
IC851	G-4
IC901	C-6
IC902	C-5
Q105	D-5
Q107	F-6
Q112	D-5
Q124	F-4
Q125	E-6
Q126	E-6
Q130	D-6
Q181	F-6
Q182	F-5
Q202	D-4
Q203	D-4
Q204	D-4
Q215	D-5
Q219	D-4
Q306	F-2
Q307	F-2
Q315	F-2
Q316	F-2
Q317	F-3
Q322	D-2
Q323	D-1
Q324	E-3
Q325	F-2
Q402	C-3
Q405	D-2
Q413	D-1
Q414	E-3
Q417	D-2
Q422	D-3
Q423	D-3
Q426	D-1
Q427	C-3
Q602	A-5
Q603	B-5
Q604	C-5
Q605	C-4
Q607	B-6
Q608	C-6
Q701	G-2
Q801	H-4
Q802	G-6
Q903	F-5

HK-4 BOARD (CONDUCTOR SIDE)

D101	D-6
D102	D-5
D105	E-4
D106	F-4
D107	F-4
D108	D-4
D301	D-1
D302	E-1
D401	D-2
D402	D-1
D403	D-1
D405	D-2
D501	C-1
D702	F-3
D801	G-6
D802	G-6
IC501	B-2
IC603	B-5
Q101	E-6
Q102	E-5
Q103	E-5
Q104	E-5
Q110	D-5
Q111	E-5
Q113	E-4
Q116	F-4
Q117	E-4
Q118	F-4
Q119	E-4
Q120	F-4
Q121	D-4
Q122	E-5
Q123	E-5
Q127	E-6
Q128	E-6
Q129	D-6
Q131	D-6
Q184	F-5
Q201	D-4
Q206	D-4
Q207	C-4
Q208	C-4
Q209	C-5
Q210	D-5
Q211	D-5
Q212	D-5
Q213	C-5
Q214	C-6
Q217	D-5
Q218	D-6
Q301	E-1
Q302	G-1
Q305	G-1
Q309	F-1
Q310	F-2
Q311	F-2
Q312	F-3
Q313	F-3
Q314	F-2
Q318	F-1
Q319	E-1
Q320	E-1
Q321	E-2
Q326	F-3
Q328	F-2
Q401	C-3
Q403	D-3
Q404	D-3
Q406	E-2
Q407	C-2
Q408	D-3
Q409	D-3
Q410	D-3
Q411	D-3
Q412	E-2
Q415	D-2
Q416	D-2
Q418	D-1
Q419	D-2
Q420	D-1
Q421	C-1
Q424	C-2
Q425	E-3
Q428	C-3
Q429	C-3
Q430	C-4
Q431	C-3
Q501	C-1
Q502	C-1
Q503	B-1
Q601	B-4
Q606	C-4
Q702	G-2
Q703	G-2
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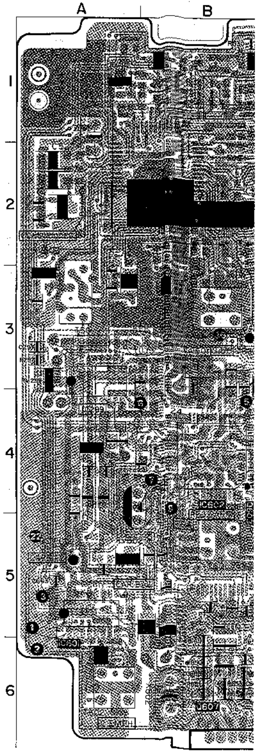
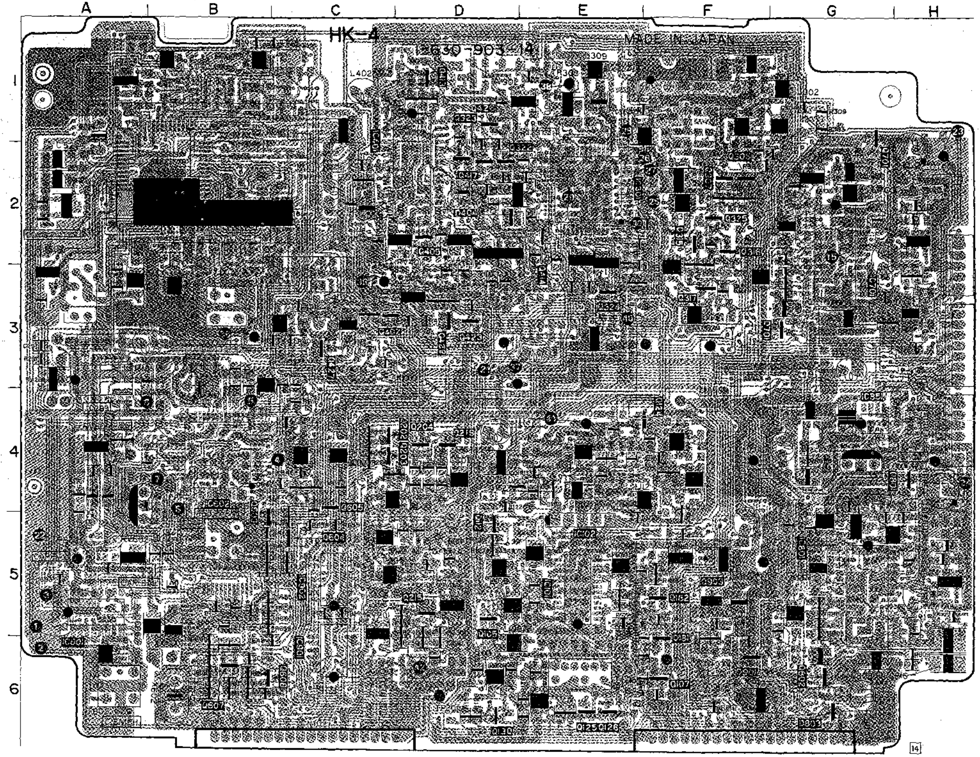
Q706	H-3
Q707	H-3
Q708	H-3
Q709	H-2
Q710	H-2
Q803	G-5
Q804	G-5
Q805	G-5
Q806	H-4
Q807	H-6
Q808	H-6
Q809	H-5
Q810	H-5
Q811	G-5
Q851	G-4
Q852	H-4
Q901	F-6
Q902	F-6

HK-4 BOARD (COMPONENT SIDE)



VIDEO PROCESS, Y/C/AFM MIX) PRINTED WIRING BOARD

HK-4 BOARD (COMPONENT SIDE)


A
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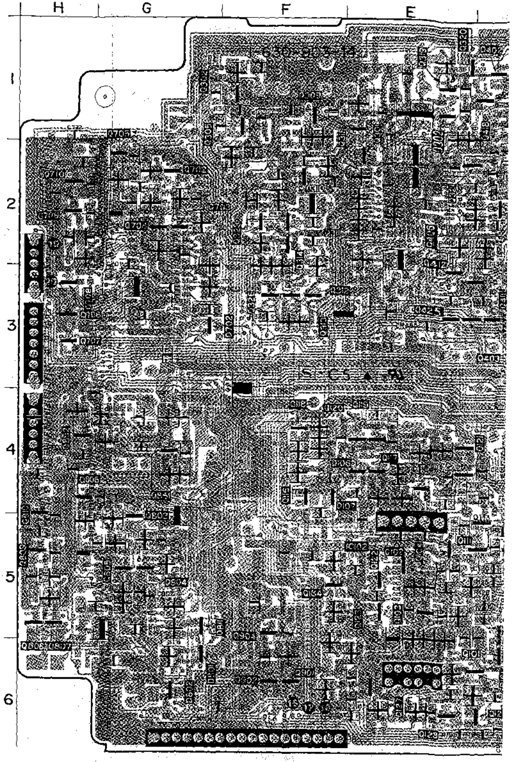
HK-4
2630-903-14
MADE IN JAPAN

HK-4 BOARD (CONDUCTOR SIDE)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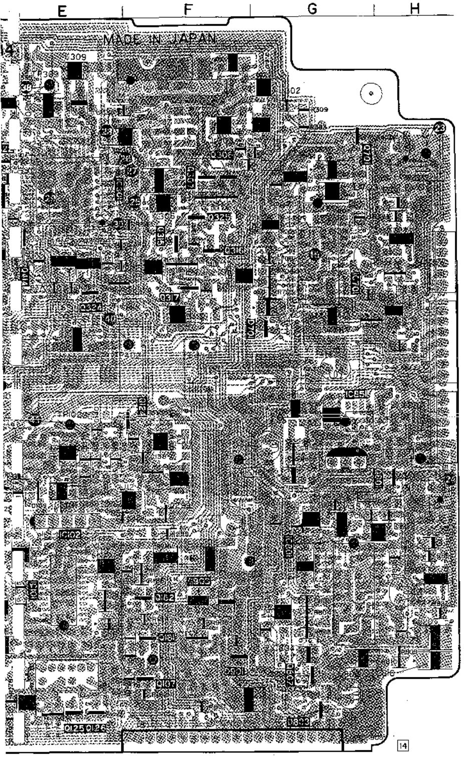
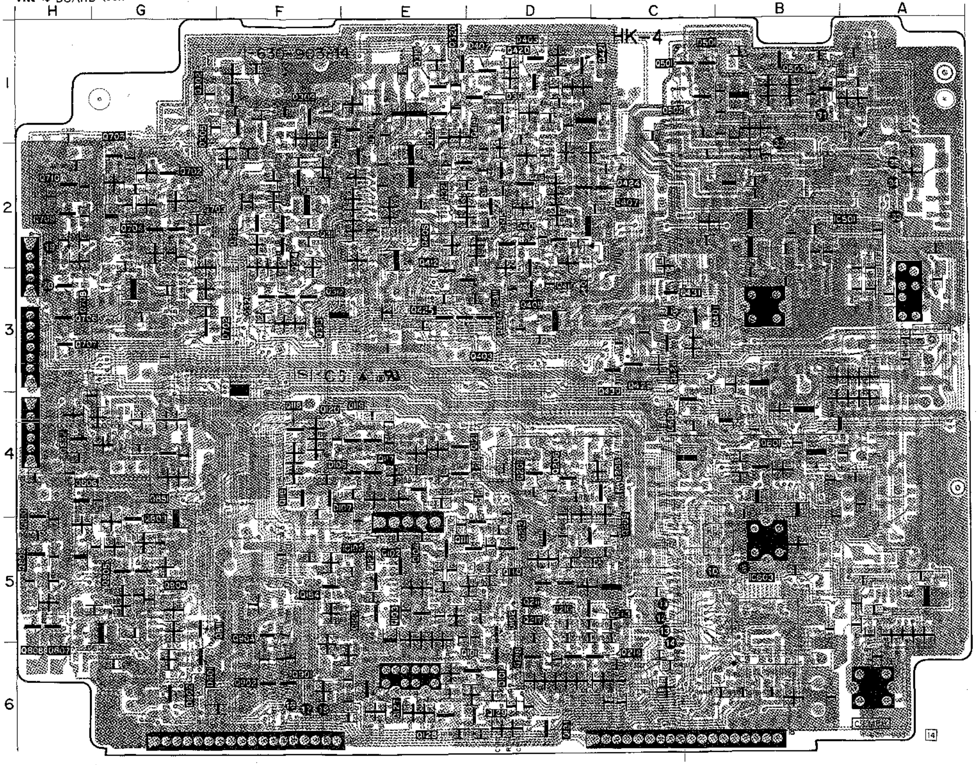

E
F
G
H
MADE IN JAPAN
IC102
IC85

HK-4 BOARD (CONDUCTOR SIDE)


H
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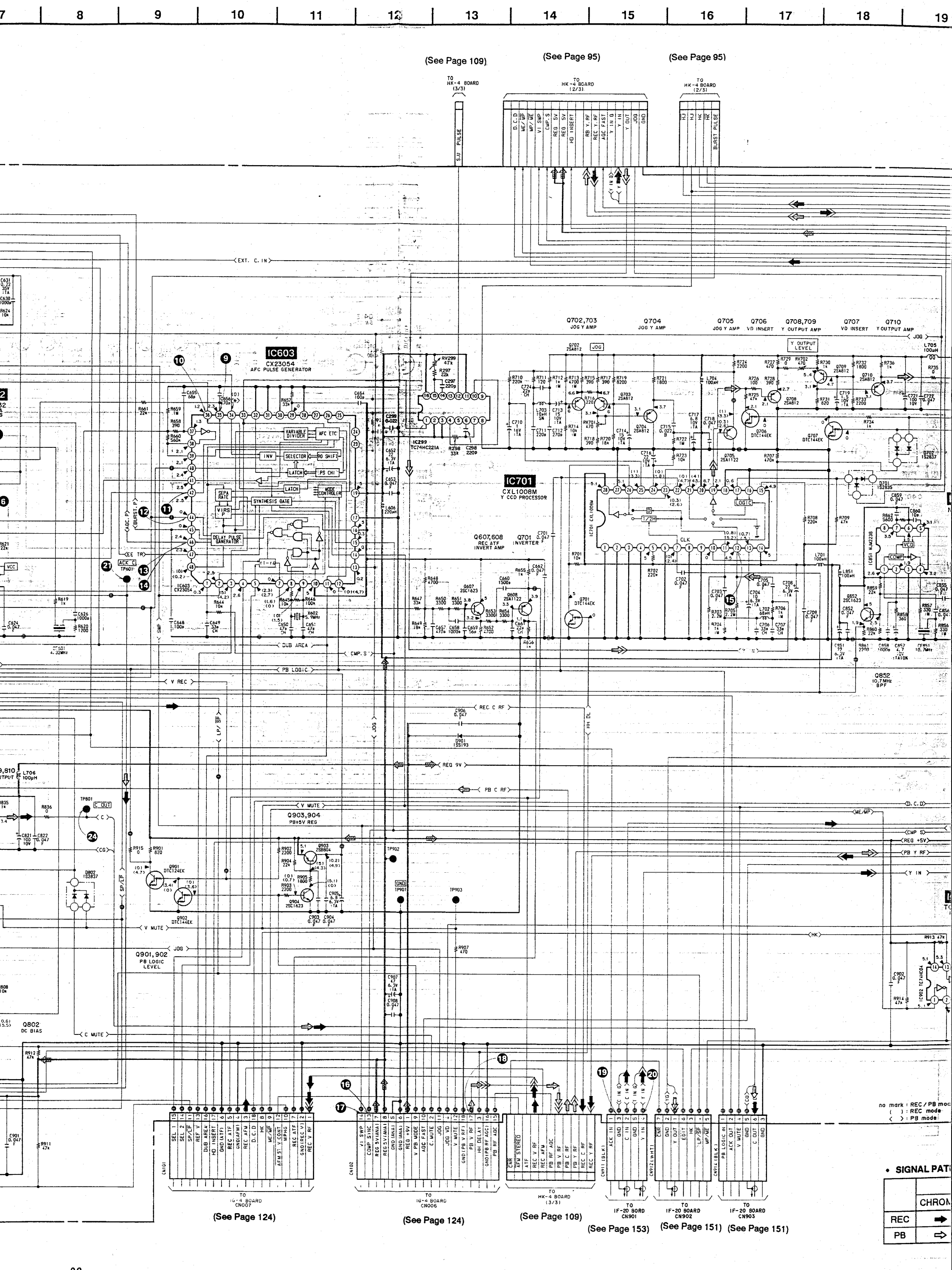
HK-4
1-630-903-14
IC501
IC503



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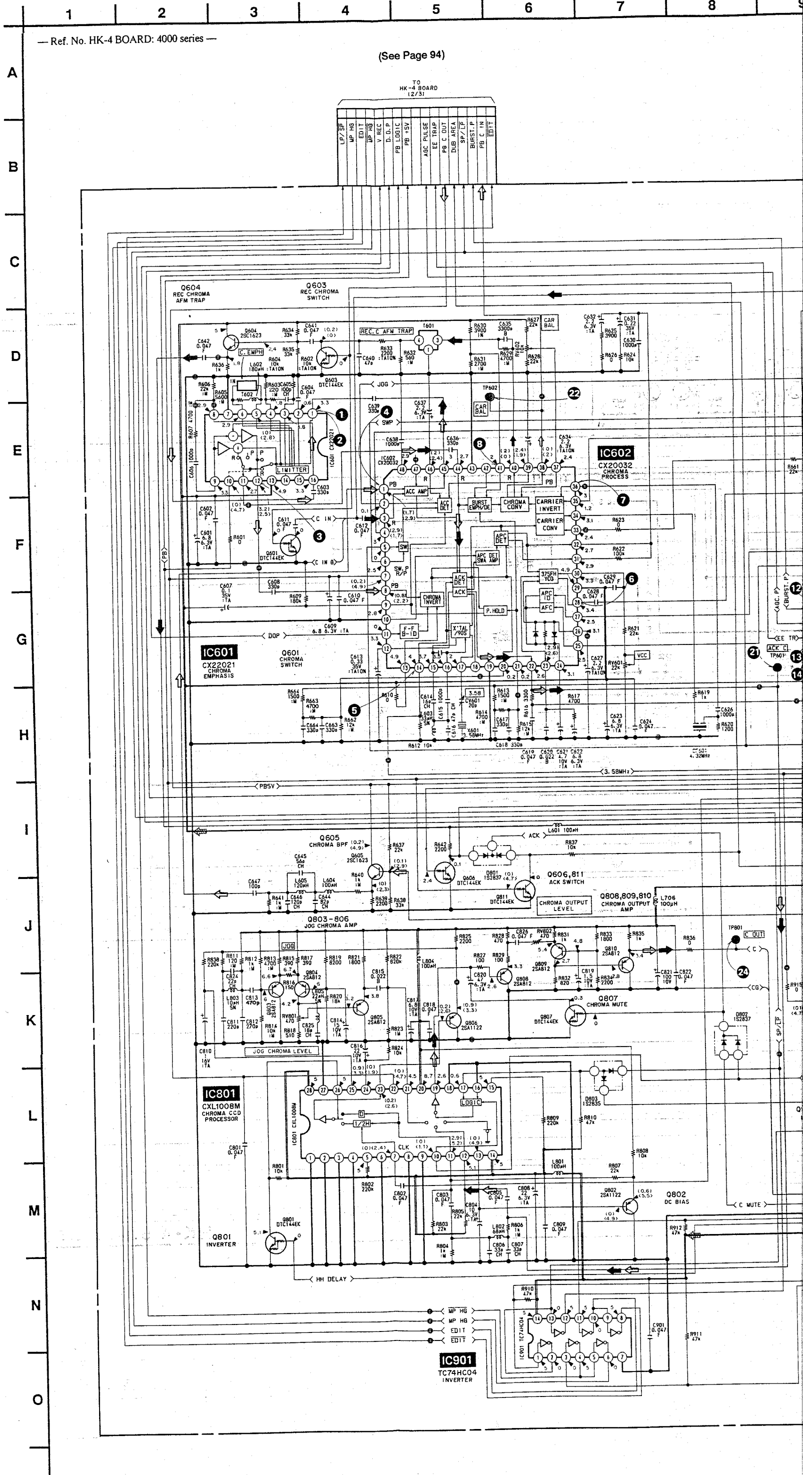
(See Page 109)
TO HK-4 BOARD (3/3)
S.U PULSE
(See Page 95)
TO HK-4 BOARD (2/3)
D.C.D
ME/WE
MP/WE
V1 SWP
CMP.S
REG 5V
REG 5V
HD INSERT
PB Y.RF
REC Y.RF
AGC FAST
Y IN D
Y IN
Y OUT
JOG
GND
(See Page 95)
TO HK-4 BOARD (2/3)
HJ
HJ
HK
HK
BURST PULSE
EXT. C. IN
IC603
CX23054
AFC PULSE GENERATOR
VARIABLE DIVIDER
AFC ETC
INV
SELECTOR
90 SHIFT
LATCH
PS CH
LATCH
MODE CONTROLLER
SEPA RATE
V1RS P
SYNTHESIS GATE
DELAY PULSE GENERATOR
ACK C
TP601
EE TR
IC299
TC74HC221A
Q702,703 JOG Y AMP
Q704 JOG Y AMP
Q705 JOG Y AMP
Q706 VD INSERT
Q708,709 Y OUTPUT AMP
Q707 VD INSERT
Q710 Y OUTPUT AMP
Y OUTPUT LEVEL
IC701
CXL1008M
Y CCD PROCESSOR
LOGIC
CLK
1/2H
Q607,608 REC ATF INVERT AMP
Q701 INVERTER
IC851 NJM2238
VCO
COMP
Q852 10.7MHz BPF
DUB AREA
CMP.S
PB LOGIC
V REC
REC C RF
D901 1SS193
REG 9V
PB C RF
LP/SP
JOG
HH DL
V MUTE
Q903,904 PB+5V REG
TP801
C OUT
TP902
GND TP901
TP903
Q901 DTC124EK
Q902 DTC144EK
Q901,902 PB LOGIC LEVEL
Q802 DC BIAS
C MUTE
D.C.D
ME/MP
CMP S
REG +5V
PB Y RF
Y IN
HK
IC902 TC74HC04
CN101
SEL 1
SEL 2
SP/LP
REC V
DUB AREA
HD INSERT
GND (ATF)
REC ATF
GND (AFM)
REC AFM
D.C.D
HK
ME/MP
AFM S1 V CONT
MPHG
REC ATF
GND (REC V)
REC V RF
TO IG-4 BOARD CN007
(See Page 124)
CN102
V1 SWP
COMP SYNC
REG 5V (ANA)
GND (ANA)
REG +9V
V PB MODE
AGC FAST
C MUTE
JOG VD
V MUTE
GND (PB V RF)
PB V RF
HH DELAY
GND (PB RF AGC)
PB RF AGC
TO IG-4 BOARD CN006
(See Page 124)
CNR
AFM STEREO
ATF
REC V RF
REC AFM
PB RF AGC
PB V RF
PB C RF
PB Y RF
REC C RF
REC Y RF
TO HK-4 BOARD (3/3)
(See Page 109)
CN911 (BLK)
ACK IN
GND
C IN
GND
Y IN
TO IF-20 BORD CN901
(See Page 153)
CN912 (WHT)
CNR
Y OUT
EDIT
HK
LP/SP
MP/ME
TO IF-20 BOARD CN902
(See Page 151)
CN914 (BLK)
PB LOGIC H
ACK OUT
V MUTE
GND
C OUT
GND
TO IF-20 BOARD CN903
(See Page 151)
no mark : REC/PB moc
( ) : REC mode
⟨ ⟩ : PB mode
• SIGNAL PAT
CHRON
REC
PB

— Ref. No. HK-4 BOARD: 4000 series —

(See Page 94)


1
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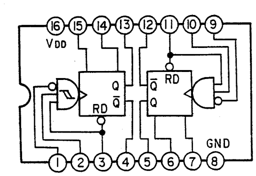
7
8
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
TO HK-4 BOARD (2/3)
LP/SP
MP HG
EDIT
MP HG
V REC
D.O.P
PB LOGIC
PB +5V
AGC PULSE
EE TRAP
PB C OUT
DUB AREA
SP/LP
BURST.P
PB C IN
EDIT
Q604 REC CHROMA AFM TRAP
Q603 REC CHROMA SWITCH
REC.C AFM TRAP
C.EMPH
LIMITTER
IC601 CX22021 CHROMA EMPHASIS
Q601 CHROMA SWITCH
IC602 CX20032 CHROMA PROCESS
ACC AMP
ACC DET
BURST EMPHASIS
CHROMA CONV
CARRIER INVERT
CARRIER CONV
APC DET
APC DET SWA AMP
ACK DET
CHROMA INVERT
P.HOLD
X'TAL /90S
F-F B-ID
375fH VCO
AFC
CAR BAL
JOG
SWP
DOP
C IN
C IN B
PBSV
3.58MHz
Q605 CHROMA BPF
Q606,811 ACK SWITCH
CHROMA OUTPUT LEVEL
Q808,809,810 CHROMA OUTPUT AMP
Q803-806 JOG CHROMA AMP
JOG CHROMA LEVEL
Q807 CHROMA MUTE
IC801 CXL1008M CHROMA CCD PROCESSOR
LOGIC
1/2H
CLK
Q801 INVERTER
HH DELAY
Q802 DC BIAS
C MUTE
C OUT
TP801
IC901 TC74HC04 INVERTER
MP HG
MP HG
EDIT
EDIT
ACK
AGC P
BURST P
EE TR
SP/LP
CG

IC299 (TC74HC221AF)


16
15
14
13
12
11
10
9
VDD
Q
Q̄
RD
Q̄
RD
Q
GND
1
2
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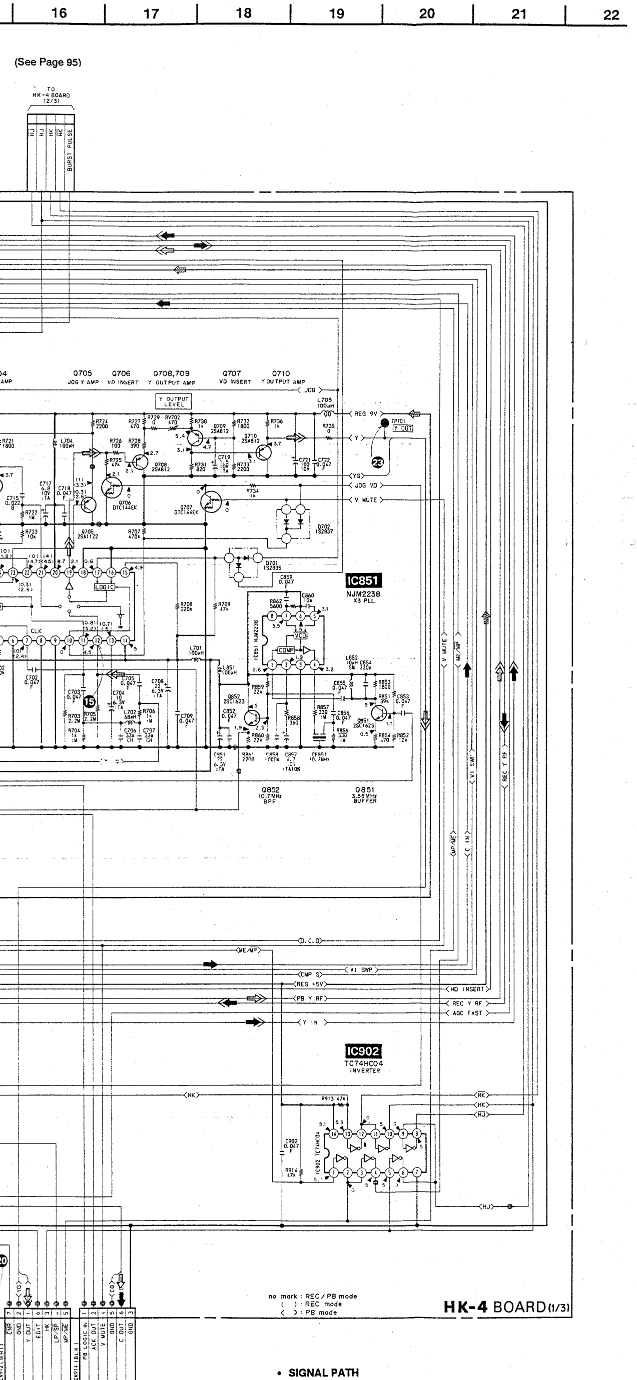
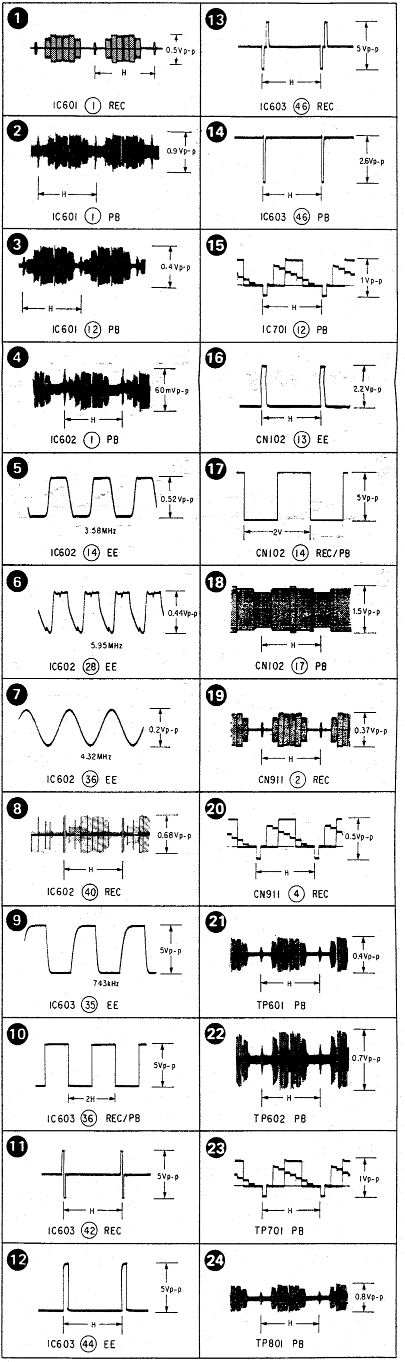
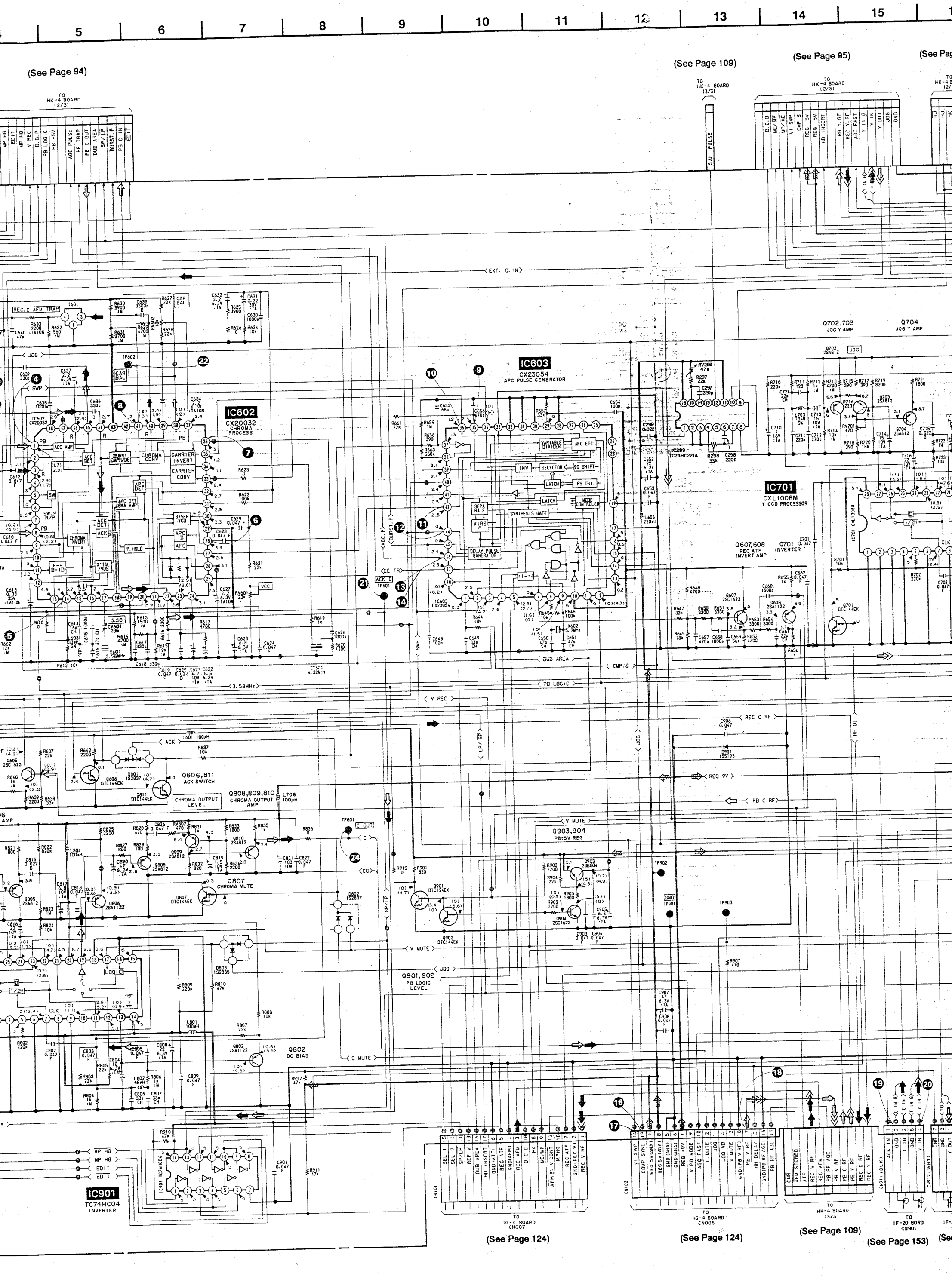

16
17
18
19
20
21
22
(See Page 95)
TO HK-4 BOARD (2/3)
HJ
HJ
HK
HK
BURST PULSE
Q705 JOG Y AMP
Q706 VD INSERT
Q708,709 Y OUTPUT AMP
Q707 VD INSERT
Q710 Y OUTPUT AMP
Y OUTPUT LEVEL
JOG
REG 9V
TP701 Y OUT
Y
YG
JOG VD
V MUTE
LOGIC
CLK
IC851
NJM2238
X3 PLL
VCO
COMP
Q852 10.7MHz BPF
Q851 3.58MHz BUFFER
V MUTE
ME/MP
VI SWP
C IN
REC Y RF
MP/ME
D.C.D
CMP S
REG +5V
PB Y RF
Y IN
HD INSERT
REC Y RF
AGC FAST
IC902
TC74HC04
INVERTER
HK
HJ
no mark : REC / PB mode
( ) : REC mode
< > : PB mode
HK-4 BOARD (1/3)
CNR
GND
Y OUT
EDIT
HK
LP/SP
MP/ME
PB LOGIC H
ACK OUT
V MUTE
GND
C OUT
GND
TO IF-20 BOARD CN902
(See Page 151)
TO IF-20 BOARD CN903
(See Page 151)

• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC	➡	➠		➡
PB	⇨	⇨		⇨

HK-4 BOARD (1/3)





5
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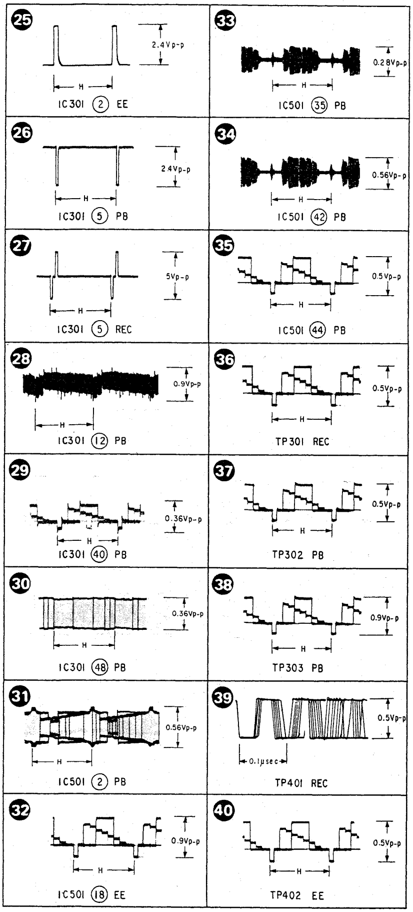
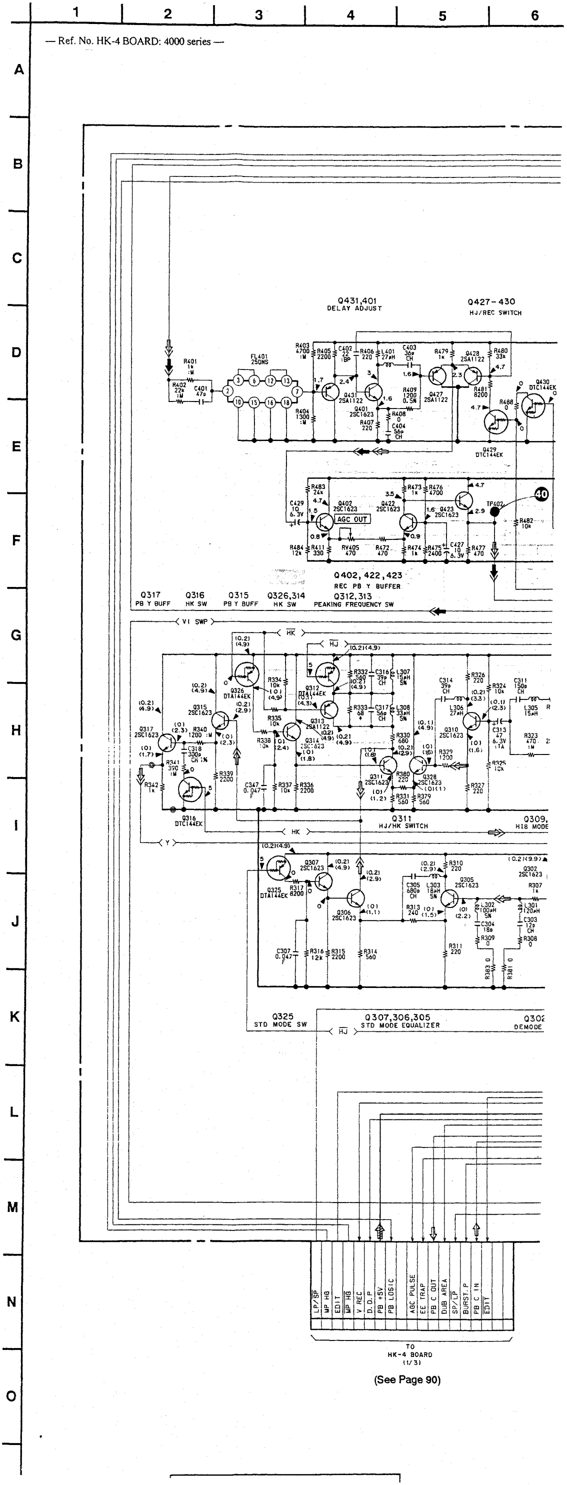
11
12
13
14
15
(See Page 94)
TO HK-4 BOARD (2/3)
(See Page 109)
TO HK-4 BOARD (3/3)
S.U PULSE
(See Page 95)
TO HK-4 BOARD (2/3)
IC602
CX20032
CHROMA PROCESS
IC603
CX23054
AFC PULSE GENERATOR
IC299
TC74HC221A
IC701
CXL1008M
Y CCD PROCESSOR
Q702,703
JOG Y AMP
Q704
JOG Y AMP
Q607,608
REC ATF INVERT AMP
Q701
INVERTER
Q606,811
ACK SWITCH
Q808,809,810
CHROMA OUTPUT AMP
Q807
CHROMA MUTE
Q903,904
PB+5V REG
Q901,902
PB LOGIC LEVEL
Q802
DC BIAS
IC901
TC74HC04
INVERTER
EXT. C. IN
3.58MHz
V REC
REC C RF
REG 9V
PB C RF
V MUTE
JOG
C MUTE
CMP.S
PB LOGIC
DUB AREA
TO IG-4 BOARD CN007
(See Page 124)
TO IG-4 BOARD CN006
(See Page 124)
TO HK-4 BOARD (3/3)
(See Page 109)
TO IF-20 BORD CN901
(See Page 153)

HK-4 BOARD (2/3)



HK-4 (Y VIDEO PROCESS) SCHEMATIC DIAGRAM

— Ref. No. HK-4 BOARD: 4000 series —


1
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A
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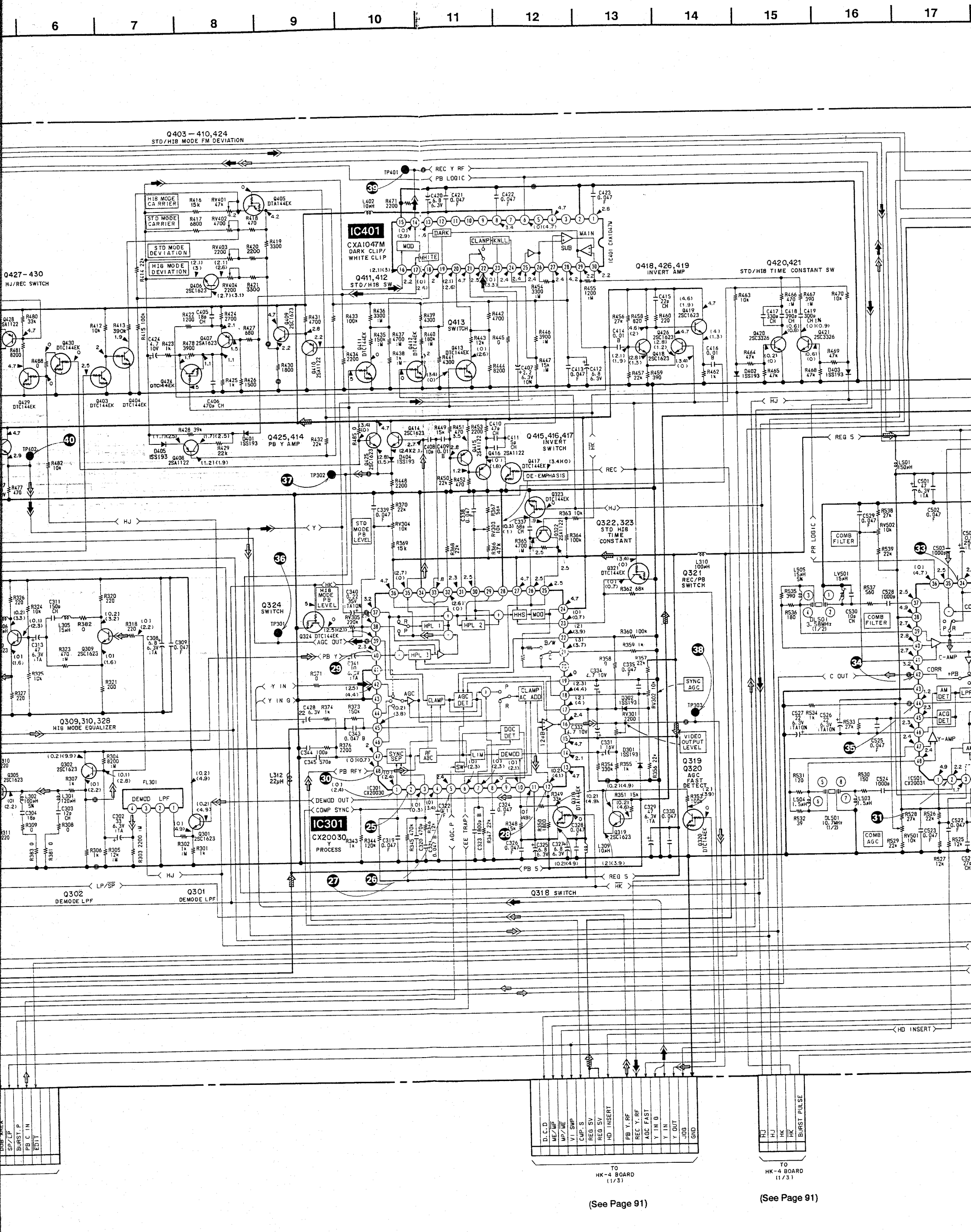
C
D
E
F
G
H
I
J
K
L
M
N
O
Q431,401 DELAY ADJUST
Q427-430 HJ/REC SWITCH
FL401 250NS
Q428 2SA1122
Q430 DTC144EK
Q429 DTC144EK
Q431 2SA1122
Q401 2SC1623
Q427 2SA1122
Q402 2SC1623
Q422 2SC1623
Q423 2SC1623
AGC OUT
TP402
40
Q402, 422, 423 REC PB Y BUFFER
Q317 PB Y BUFF
Q316 HK SW
Q315 PB Y BUFF
Q326,314 HK SW
Q312,313 PEAKING FREQUENCY SW
VI SWP
HK
HJ
Q326 DTA144EK
Q315 2SC1623
Q317 2SC1623
Q312 DTA144EK
Q313 2SA1122
Q314 2SC1623
Q311 2SC1623
Q328 2SC1623
Q310 2SC1623
Q316 DTC144EK
Q311 HJ/HK SWITCH
Q309, H18 MODE
Y
Q307 2SC1623
Q325 DTA144EK
Q306 2SC1623
Q305 2SC1623
Q302 2SC1623
Q325 STD MODE SW
Q307,306,305 STD MODE EQUALIZER
Q302 DEMODE
LP/SP
MP HG
EDIT
MP HG
V REC
D.O.P
PB +5V
PB LOGIC
AGC PULSE
EE TRAP
PB C OUT
DUB AREA
SP/LP
BURST P
PB C IN
EDIT
TO HK-4 BOARD (1/3)

(See Page 90)



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11
12
13
14
15
16
17
Q403 — 410,424
STD/HI8 MODE FM DEVIATION
REC Y RF
PB LOGIC
TP401
39
IC401
CXA1047M
DARK CLIP/
WHITE CLIP
MOD
DARK
WHITE
CLANP
KNLL
MAIN
SUB
IC401 CXA1047M
HI8 MODE CARRIER
STD MODE CARRIER
STD MODE DEVIATION
HI8 MODE DEVIATION
Q405 DTA144EK
Q406 2SC1623
Q427-430
HJ/REC SWITCH
Q411,412
STD/HI8 SW
Q413 SWITCH
Q418,426,419
INVERT AMP
Q420,421
STD/HI8 TIME CONSTANT SW
Q425,414
PB Y AMP
Q415,416,417
INVERT SWITCH
DE-EMPHASIS
REC
HJ
HK
REG 5
TP402
40
TP302
37
Y
STD MODE PB LEVEL
Q322,323
STD HI8 TIME CONSTANT
Q321
REC/PB SWITCH
36
Q324 SWITCH
TP301
HI8 MODE PB LEVEL
AGC OUT
PB Y
HPL 1
HPL 2
HPL 3
HHS
MOD
B/W
29
Y IN
Y IN G
AGC
CLAMP
AGC DET
CLAMP AC ADD
DOC DET
SYNC SEP
RF ABC
LIM
DEMOD
SW
PB RFY
30
IC301 CX20030
DEMOD OUT
COMP SYNC
IC301
CX20030
Y PROCESS
25
28
EE TRAP
AGC. P
38
SYNC AGC
TP303
VIDEO OUTPUT LEVEL
Q319
Q320
AGC FAST DETECT
Q309,310,328
HI8 MODE EQUALIZER
DEMOD LPF
FL301
Q302
DEMODE LPF
Q301
DEMODE LPF
LP/SP
PB 5
REG 5
Q318 SWITCH
27
26
PR LOGIC
COMB FILTER
33
DL501 3.58MHz (1/2)
34
C OUT
C-AMP
CORR
+PB
AM DET
ACG DET
Y-AMP
35
DL501 10.7MHz (1/2)
IC501 CX20031
31
COMB AGC
HD INSERT
DUB AREA
SP/LP
BURST. P
PB C IN
EDIT
D.C.D
ME/MP
MP/ME
V1 SWP
CMP. S
REG 5V
REG 5V
HD INSERT
PB Y.RF
REC Y.RF
AGC FAST
Y IN G
Y IN
Y OUT
JOG
GND
TO
HK-4 BOARD
(1/3)
HJ
HJ
HK
HK
BURST PULSE
TO
HK-4 BOARD
(1/3)

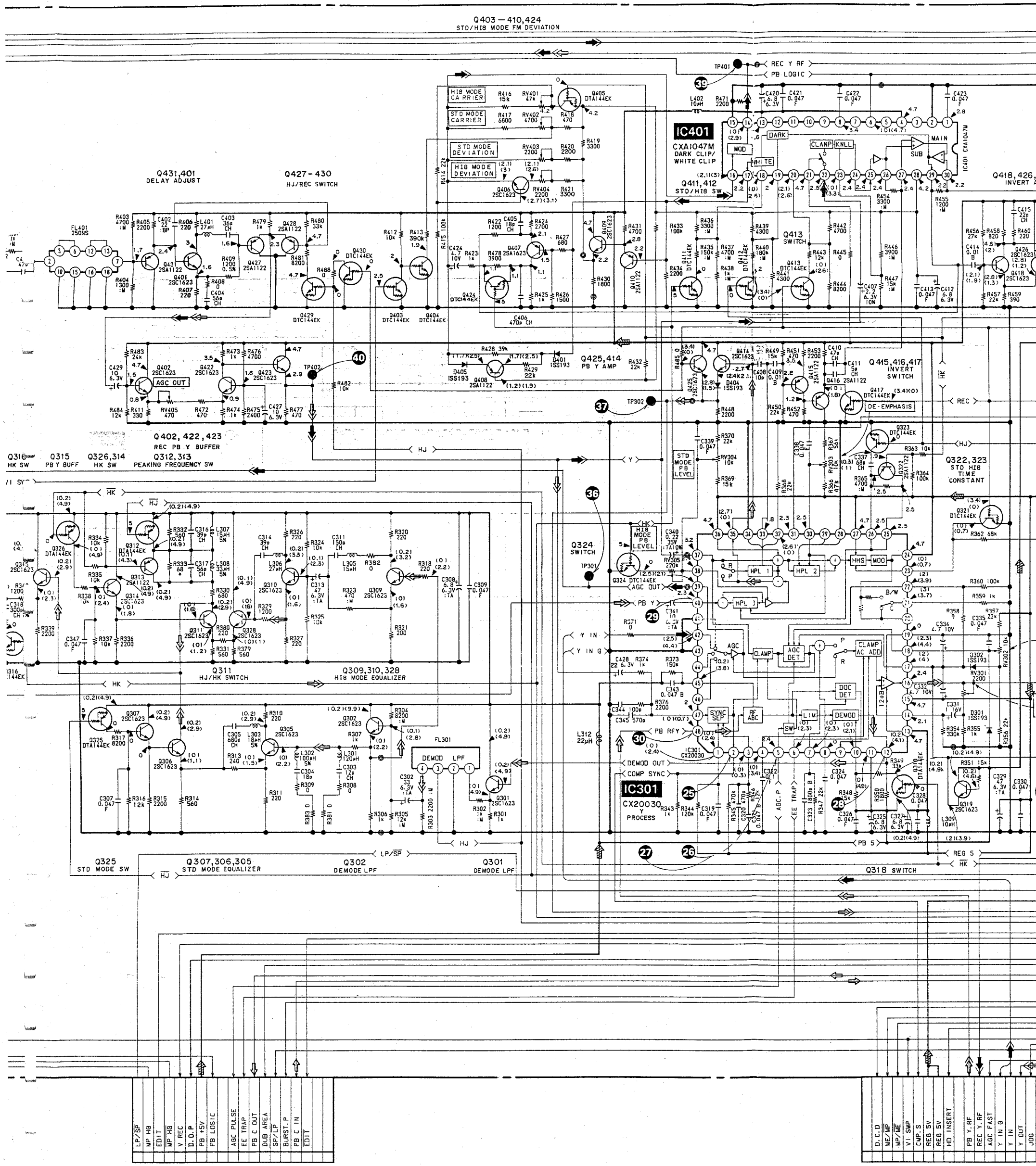
(See Page 91)

(See Page 91)

) SCHEMATIC DIAGRAM

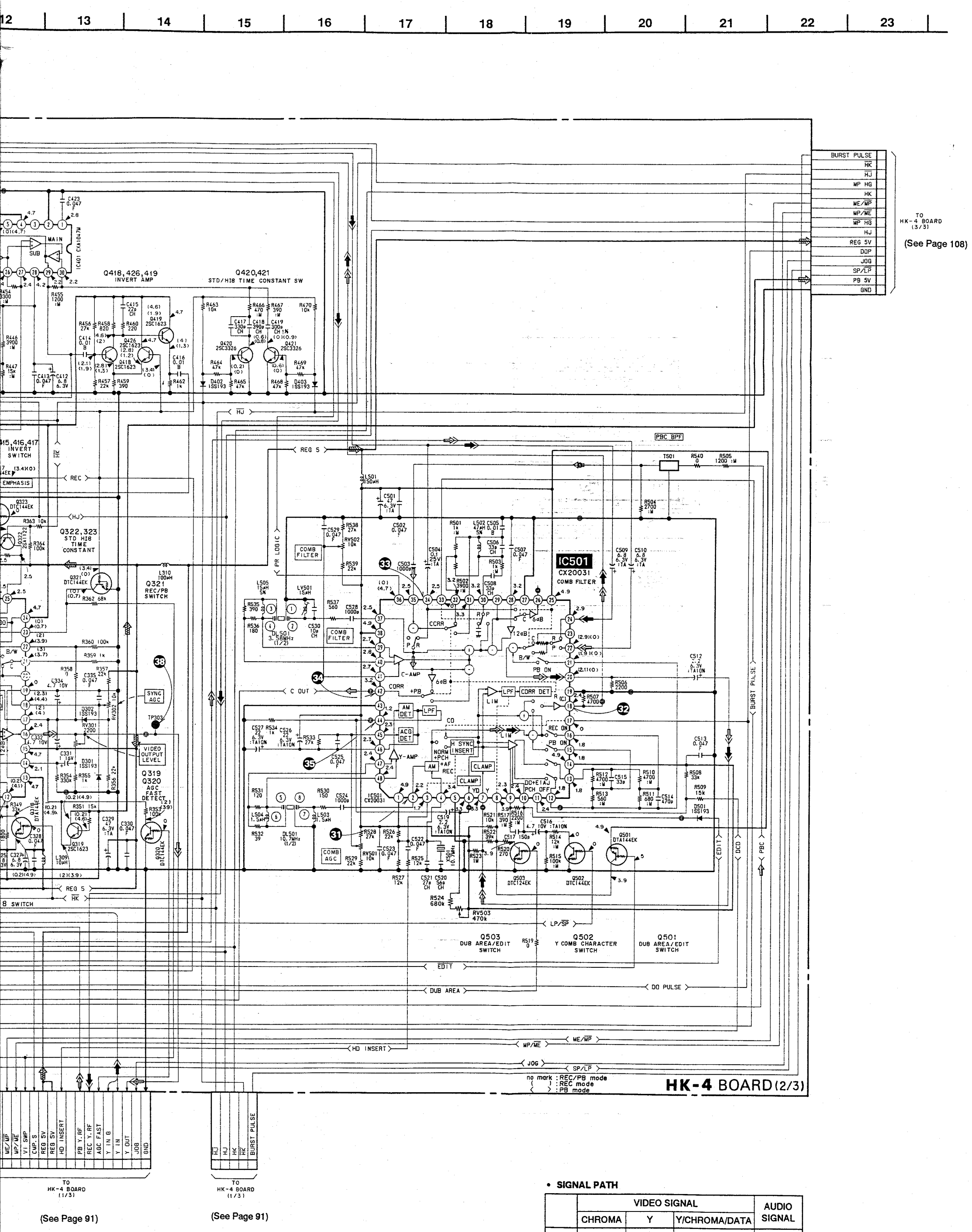
3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13

series —


Q403 — 410,424
STD/HI8 MODE FM DEVIATION
TP401
REC Y RF
PB LOGIC
39
HI8 MODE CARRIER
STD MODE CARRIER
STD MODE DEVIATION
HI8 MODE DEVIATION
Q405 DTA144EK
Q406 2SC1623
IC401
CXA1047M
DARK CLIP/WHITE CLIP
DARK
MOD
WHITE
CLAMP
KNLL
MAIN
SUB
IC401 CXA1047M
Q411,412
STD/HI8 SW
Q431,401
DELAY ADJUST
Q427 - 430
HJ/REC SWITCH
FL401
250NS
Q413
SWITCH
Q418,426
INVERT
Q425,414
PB Y AMP
Q415,416,417
INVERT SWITCH
DE-EMPHASIS
Q417 DTC144EK
AGC OUT
TP402
40
Q402,422,423
REC PB Y BUFFER
TP302
37
REC
HJ
Y
Q322,323
STD HI8 TIME CONSTANT
Q316 HK SW
Q315 PB Y BUFF
Q326,314 HK SW
Q312,313 PEAKING FREQUENCY SW
STD MODE PB LEVEL
HI8 MODE PB LEVEL
36
Q324 SWITCH
TP301
AGC OUT
PB Y
29
Y IN
Y IN G
HPL 1
HPL 2
HHS
MOD
B/W
AGC
CLAMP
AGC DET
CLAMP AC ADD
DOC DET
SYNC SEP
RF ABC
LIM
DEMOD
SW
PB RFY
30
DEMOD OUT
COMP SYNC
IC301
CX20030
Y PROCESS
25
28
27
26
PB S
REG S
HK
Q318 SWITCH
Q311
HJ/HK SWITCH
Q309,310,328
HI8 MODE EQUALIZER
FL301
DEMOD LPF
Q325
STD MODE SW
Q307,306,305
STD MODE EQUALIZER
Q302
DEMODE LPF
Q301
DEMODE LPF
LP/SP
LP/SP
MP HB
EDIT
MP HG
V REC
D.O.P
PB +5V
PB LOGIC
AGC PULSE
EE TRAP
PB C OUT
DUB AREA
SP/LP
BURST.P
PB C IN
EDIT
TO
HK-4 BOARD
(1/3)
D.C.D
WE/WP
WP/WE
VI SWP
CMP.S
REG 5V
REG 5V
HD INSERT
PB Y.RF
REC Y.RF
AGC FAST
Y IN G
Y IN
Y OUT
JOG
TO
HK-4 BOARD
(1/3)

(See Page 90)

(See Page 91)


12
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19
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21
22
23
BURST PULSE
HK
HJ
MP HG
HK
ME/MP
MP/ME
MP HG
HJ
REG 5V
DOP
JOG
SP/LP
PB 5V
GND
TO HK-4 BOARD (3/3)
(See Page 108)
IC401 CXA1047M
MAIN
SUB
Q418,426,419 INVERT AMP
Q420,421 STD/HI8 TIME CONSTANT SW
Q415,416,417 INVERT SWITCH
EMPHASIS
Q322,323 STD HI8 TIME CONSTANT
Q321 REC/PB SWITCH
SYNC AGC
VIDEO OUTPUT LEVEL
Q319 Q320 AGC FAST DETECT
TP303
HJ
HK
REC
REG 5
PR LOGIC
COMB FILTER
PBC BPF
IC501 CX20031 COMB FILTER
CCRR
C-AMP
CORR
+PB
6dB
12dB
B/W
PB ON
LPF
CORR DET
LIM
AM DET
ACG DET
Y-AMP
H SYNC INSERT
NORM +PCH
AM
+AF REC
CLAMP
DO+EIAJ PCH OFF
REC ON
C OUT
COMB AGC
DL501 3.58MHz (1/2)
DL501 10.7MHz (1/2)
Q503 DUB AREA/EDIT SWITCH
Q502 Y COMB CHARACTER SWITCH
Q501 DUB AREA/EDIT SWITCH
BURST PULSE
EDIT
DCD
PBC
LP/SP
EDIT
DUB AREA
DO PULSE
HD INSERT
MP/ME
ME/MP
JOG
SP/LP
no mark : REC/PB mode
( ) : REC mode
< > : PB mode
HK-4 BOARD (2/3)
ME/MP
MP/ME
VI SWP
CMP. S
REG 5V
REG 5V
HD INSERT
PB Y.RF
REC Y.RF
AGC FAST
Y IN B
Y IN
Y OUT
JOG
GND
HJ
HJ
HK
HK
BURST PULSE
TO HK-4 BOARD (1/3)
(See Page 91)
TO HK-4 BOARD (1/3)
(See Page 91)

- **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC		➡		
PB	⇨	⇨	⇛	

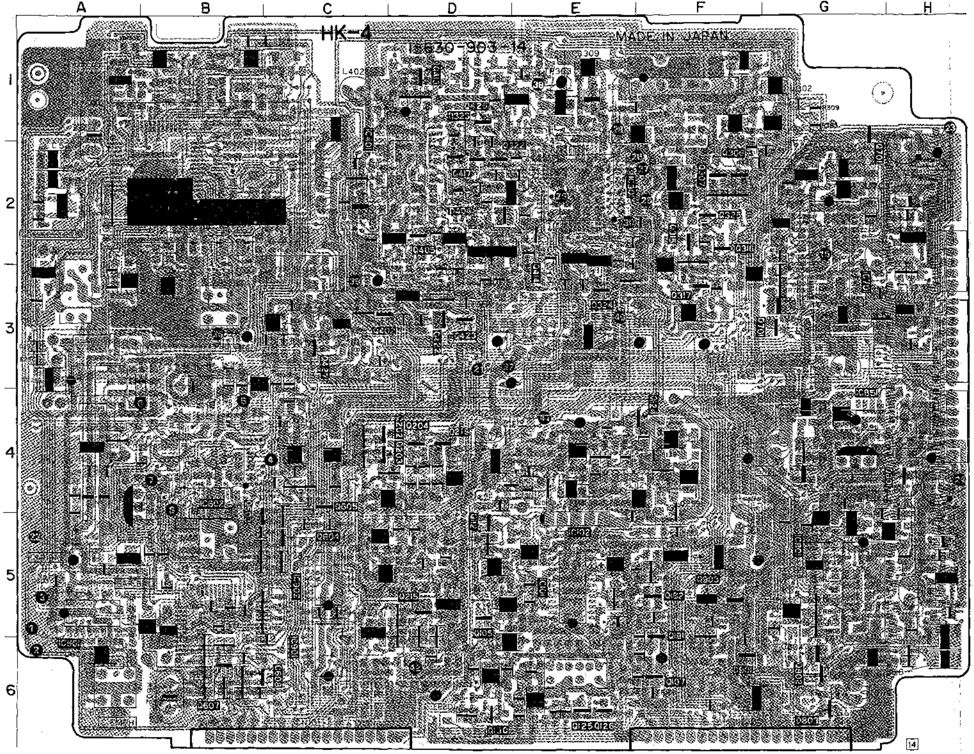
K-4 (C VIDEO PROCESS, Y VIDEO PROCESS, Y/C/AFM MIX) PRINTED WIRING BOARD

— f. No. HK-4 BOARD: 4000 series —

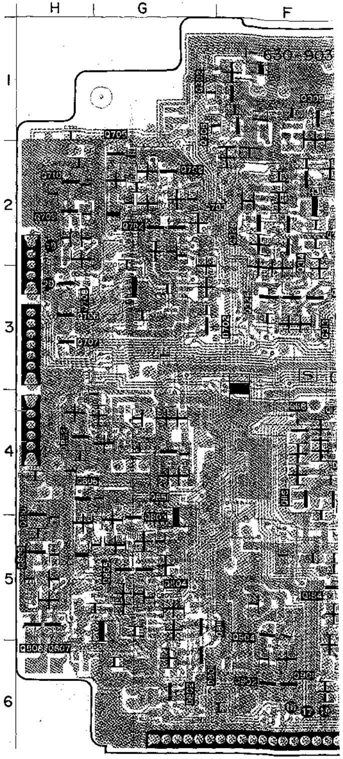
-4 BOARD OMPONENT DE)	
0	D-2
0	G-3
0	G-6
01	F-6
10	E-5
10	E-5
30	E-2
40	C-1
01	A-5
02	B-4
01	G-3
30	G-5
35	G-4
30	C-6
30	C-5
05	D-5
07	F-6
12	D-5
24	F-4
25	E-6
26	E-6
30	D-6
81	F-6
82	F-5
02	D-4
03	D-4
04	D-4
15	D-5
19	D-4
06	F-2
07	F-2
15	F-2
16	F-2
17	F-3
22	D-2
23	D-1
24	E-3
25	F-2
02	C-3
05	D-2
3	D-1
4	E-3
7	D-2
2	D-3
3	D-3
6	D-1
7	C-3
2	A-5
3	B-5
4	C-5
5	C-4
7	B-6
8	C-6
1	G-2
1	H-4
2	G-6
3	F-5

HK-4 BOARD (CONDUCTOR SIDE)	
D101	D-6
D102	D-5
D105	E-4
D106	F-4
D107	F-4
D108	D-4
D301	D-1
D302	E-1
D401	D-2
D402	D-1
D403	D-1
D405	D-2
D501	C-1
D702	F-3
D801	G-6
D802	G-6
IC501	B-2
IC603	B-5
Q101	E-6
Q102	E-5
Q103	E-5
Q104	E-5
Q110	D-5
Q111	E-5
Q113	E-4
Q116	F-4
Q117	E-4
Q118	F-4
Q119	E-4
Q120	F-4
Q121	D-4
Q122	E-5
Q123	E-5
Q127	E-6
Q128	E-6
Q129	D-6
Q131	D-6
Q184	F-5
Q201	D-4
Q206	D-4
Q207	C-4
Q208	C-4
Q209	C-5
Q210	D-5
Q211	D-5
Q212	D-5
Q213	C-5
Q214	C-6
Q217	D-5
Q218	D-6
Q301	E-1
Q302	G-1
Q305	G-1
Q309	F-1
Q310	F-2
Q311	F-2
Q312	F-3
Q313	F-3
Q314	F-2
Q318	F-1
Q319	E-1
Q320	E-1
Q321	E-2
Q326	F-3
Q328	F-2
Q401	C-3
Q403	D-3
Q404	D-3
Q406	E-2
Q407	C-2
Q408	D-3
Q409	D-3
Q410	D-3
Q411	D-3
Q412	E-2
Q415	D-2
Q416	D-2
Q418	D-1
Q419	D-2
Q420	D-1
Q421	C-1
Q424	C-2
Q425	E-3
Q428	C-3
Q429	C-3
Q430	C-4
Q431	C-3
Q501	C-1
Q502	C-1
Q503	B-1
Q601	B-4
Q606	C-4
Q702	G-2
Q703	G-2
Q704	G-2
Q705	G-1
Q706	H-3
Q707	H-3
Q708	H-3
Q709	H-2
Q710	H-2
Q803	G-5
Q804	G-5
Q805	G-5
Q806	H-4
Q807	H-6
Q808	H-6
Q809	H-5
Q810	H-5
Q811	G-5
Q851	G-4
Q852	H-4
Q901	F-6
Q902	F-6

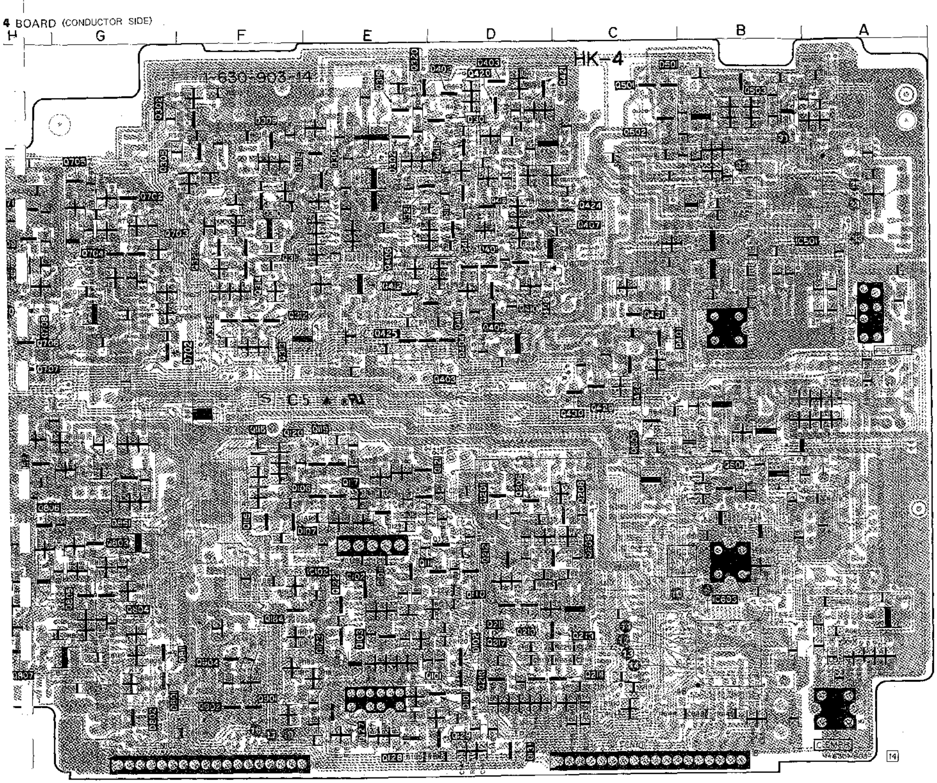
HK-4 BOARD (COMPONENT SIDE)



HK-4 BOARD (CONDUCTOR SIDE)



4 BOARD (CONDUCTOR SIDE)



* A-7061-820-A HK-4 BOARD, COMPLETE
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(DIODE)

D101	8-719-400-18	DIODE MA152WK
D102	8-719-400-18	DIODE MA152WK
D105	8-719-800-76	DIODE 1SS226
D106	8-719-400-18	DIODE MA152WK
D107	8-719-400-18	DIODE MA152WK
D108	8-719-400-18	DIODE MA152WK
D109	8-719-400-18	DIODE MA152WK
D301	8-719-400-18	DIODE MA152WK
D302	8-719-400-18	DIODE MA152WK
D401	8-719-400-18	DIODE MA152WK
D402	8-719-400-18	DIODE MA152WK
D403	8-719-400-18	DIODE MA152WK
D404	8-719-400-18	DIODE MA152WK
D405	8-719-400-18	DIODE MA152WK
D501	8-719-400-18	DIODE MA152WK
D701	8-719-104-34	DIODE 1S2836
D702	8-719-400-18	DIODE 1S2837
D801	8-719-400-18	DIODE 1S2837
D802	8-719-400-18	DIODE 1S2837
D803	8-719-104-34	DIODE 1S2836
D901	8-719-400-18	DIODE MA152WK

(IC)

IC101	8-759-233-94	IC TA8607F
IC102	8-759-925-60	IC BA401
IC299	8-759-239-58	IC TC74HC221AF
IC301	8-752-002-XX	IC CX20030
IC401	8-752-031-01	IC CXA1047M
IC501	8-752-003-12	IC CX20031
IC601	8-752-202-10	IC CX22021
IC602	8-752-003-22	IC CX20032
IC603	8-759-914-56	IC CX23054
IC701	8-752-322-24	IC CXL1008M
IC801	8-752-322-24	IC CXL1008M
IC851	8-759-710-05	IC NJM2238M
IC901	8-759-925-74	IC TC74HC04AF
IC902	8-759-925-74	IC TC74HC04AF

(TRANSISTOR)

Q101	8-729-102-07	TRANSISTOR 2SC2223
Q102	8-729-901-04	TRANSISTOR DTA114EK
Q103	8-729-102-07	TRANSISTOR 2SC2223
Q104	8-729-901-01	TRANSISTOR DTC144EK
Q105	8-729-904-07	TRANSISTOR FMG2-T-148
Q107	8-729-100-66	TRANSISTOR 2SC1623
Q110	8-729-901-01	TRANSISTOR DTC144EK
Q111	8-729-102-07	TRANSISTOR 2SC2223
Q112	8-729-901-01	TRANSISTOR DTC144EK
Q113	8-729-102-07	TRANSISTOR 2SC2223
Q116	8-729-102-07	TRANSISTOR 2SC2223
Q117	8-729-102-07	TRANSISTOR 2SC2223
Q118	8-729-102-07	TRANSISTOR 2SC2223
Q119	8-729-102-07	TRANSISTOR 2SC2223
Q120	8-729-102-07	TRANSISTOR 2SC2223
Q121	8-729-100-66	TRANSISTOR 2SC1623
Q122	8-729-901-01	TRANSISTOR DTC144EK
Q123	8-729-901-01	TRANSISTOR DTC144EK
Q124	8-729-901-06	TRANSISTOR DTA144EK
Q125	8-729-901-01	TRANSISTOR DTC144EK
Q126	8-729-100-66	TRANSISTOR 2SC1623
Q127	8-729-100-66	TRANSISTOR 2SC1623
Q128	8-729-102-07	TRANSISTOR 2SC2223
Q129	8-729-100-66	TRANSISTOR 2SC1623
Q130	8-729-907-26	TRANSISTOR IMX1
Q131	8-729-320-17	TRANSISTOR 2SA1122CD
Q132	8-729-202-38	TRANSISTOR 2SC3326N
Q181	8-729-907-46	TRANSISTOR IMZ1
Q182	8-729-903-10	TRANSISTOR FMW1
Q184	8-729-320-17	TRANSISTOR 2SA1122CD
Q201	8-729-102-07	TRANSISTOR 2SC2223
Q202	8-729-202-38	TRANSISTOR 2SC3326N
Q203	8-729-202-38	TRANSISTOR 2SC3326N
Q204	8-729-904-07	TRANSISTOR FMG2
Q206	8-729-122-63	TRANSISTOR 2SA1226
Q207	8-729-202-38	TRANSISTOR 2SC3326N
Q208	8-729-201-27	TRANSISTOR 2SC2715
Q209	8-729-201-27	TRANSISTOR 2SC2715
Q210	8-729-102-07	TRANSISTOR 2SC2223
Q211	8-729-102-07	TRANSISTOR 2SC2223
Q212	8-729-901-01	TRANSISTOR DTC144EK
Q213	8-729-901-06	TRANSISTOR DTA144EK
Q214	8-729-102-07	TRANSISTOR 2SC2223
Q215	8-729-902-96	TRANSISTOR FMS1
Q217	8-729-102-07	TRANSISTOR 2SC2223
Q218	8-729-102-07	TRANSISTOR 2SC2223
Q219	8-729-901-01	TRANSISTOR DTC144EK
Q299	8-729-901-06	TRANSISTOR DTA144EK
Q301	8-729-100-66	TRANSISTOR 2SC1623
Q302	8-729-100-66	TRANSISTOR 2SC1623
Q305	8-729-100-66	TRANSISTOR 2SC1623
Q306	8-729-100-66	TRANSISTOR 2SC1623
Q307	8-729-100-66	TRANSISTOR 2SC1623
Q309	8-729-100-66	TRANSISTOR 2SC1623
Q310	8-729-100-66	TRANSISTOR 2SC1623
Q311	8-729-100-66	TRANSISTOR 2SC1623
Q312	8-729-901-06	TRANSISTOR DTA144EK
Q313	8-729-320-17	TRANSISTOR 2SA1122CD
Q314	8-729-100-66	TRANSISTOR 2SC1623
Q315	8-729-100-66	TRANSISTOR 2SC1623
Q316	8-729-901-01	TRANSISTOR DTC144EK
Q317	8-729-100-66	TRANSISTOR 2SC1623
Q318	8-729-901-06	TRANSISTOR DTA144EK
Q319	8-729-100-66	TRANSISTOR 2SC1623
Q320	8-729-901-01	TRANSISTOR DTC144EK
Q321	8-	
Q322	8-	
Q323	8-	
Q324	8-	
Q325	8-	
Q326	8-	
Q328	8-	
Q401	8-	
Q402	8-	
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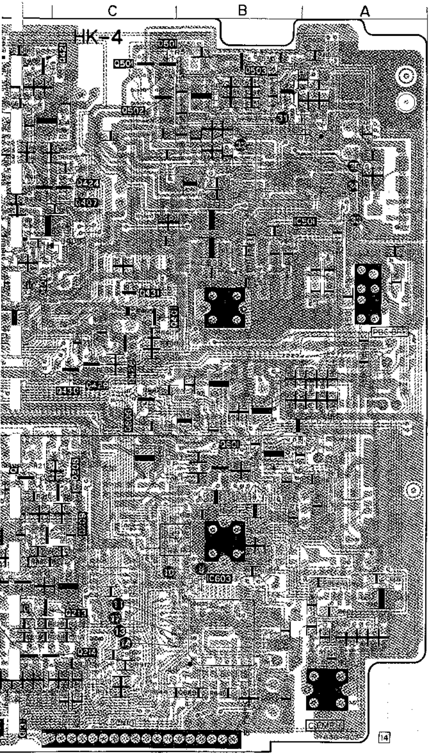

* A-7061-820-A HK-4 BOARD, COMPLETE
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(DIODE)

D101	8-719-400-18	DIODE MA152WK
D102	8-719-400-18	DIODE MA152WK
D105	8-719-800-76	DIODE 1SS226
D106	8-719-400-18	DIODE MA152WK
D107	8-719-400-18	DIODE MA152WK
D108	8-719-400-18	DIODE MA152WK
D109	8-719-400-18	DIODE MA152WK
D301	8-719-400-18	DIODE MA152WK
D302	8-719-400-18	DIODE MA152WK
D401	8-719-400-18	DIODE MA152WK
D402	8-719-400-18	DIODE MA152WK
D403	8-719-400-18	DIODE MA152WK
D404	8-719-400-18	DIODE MA152WK
D405	8-719-400-18	DIODE MA152WK
D501	8-719-400-18	DIODE MA152WK
D701	8-719-104-34	DIODE 1S2836
D702	8-719-400-18	DIODE 1S2837
D801	8-719-400-18	DIODE 1S2837
D802	8-719-400-18	DIODE 1S2837
D803	8-719-104-34	DIODE 1S2836
D901	8-719-400-18	DIODE MA152WK

(IC)

IC101	8-759-233-94	IC TA8607F
IC102	8-759-925-60	IC BA401
IC299	8-759-239-58	IC TC74HC221AF
IC301	8-752-002-XX	IC CX20030
IC401	8-752-031-01	IC CXA1047M
IC501	8-752-003-12	IC CX20031
IC601	8-752-202-10	IC CX22021
IC602	8-752-003-22	IC CX20032
IC603	8-759-914-56	IC CX23054
IC701	8-752-322-24	IC CXL1008M
IC801	8-752-322-24	IC CXL1008M
IC851	8-759-710-05	IC NJM2238M
IC901	8-759-925-74	IC TC74HC04AF
IC902	8-759-925-74	IC TC74HC04AF

(TRANSISTOR)

Q101	8-729-102-07	TRANSISTOR 2SC2223
Q102	8-729-901-04	TRANSISTOR DTA114EK
Q103	8-729-102-07	TRANSISTOR 2SC2223
Q104	8-729-901-01	TRANSISTOR DTC144EK
Q105	8-729-904-07	TRANSISTOR FMG2-T-148
Q107	8-729-100-66	TRANSISTOR 2SC1623
Q110	8-729-901-01	TRANSISTOR DTC144EK
Q111	8-729-102-07	TRANSISTOR 2SC2223
Q112	8-729-901-01	TRANSISTOR DTC144EK
Q113	8-729-102-07	TRANSISTOR 2SC2223
Q116	8-729-102-07	TRANSISTOR 2SC2223
Q117	8-729-102-07	TRANSISTOR 2SC2223
Q118	8-729-102-07	TRANSISTOR 2SC2223
Q119	8-729-102-07	TRANSISTOR 2SC2223
Q120	8-729-102-07	TRANSISTOR 2SC2223
Q121	8-729-100-66	TRANSISTOR 2SC1623
Q122	8-729-901-01	TRANSISTOR DTC144EK
Q123	8-729-901-01	TRANSISTOR DTC144EK
Q124	8-729-901-06	TRANSISTOR DTA144EK
Q125	8-729-901-01	TRANSISTOR DTC144EK
Q126	8-729-100-66	TRANSISTOR 2SC1623
Q127	8-729-100-66	TRANSISTOR 2SC1623
Q128	8-729-102-07	TRANSISTOR 2SC2223
Q129	8-729-100-66	TRANSISTOR 2SC1623
Q130	8-729-907-26	TRANSISTOR IMX1
Q131	8-729-320-17	TRANSISTOR 2SA1122CD
Q132	8-729-202-38	TRANSISTOR 2SC3326N
Q181	8-729-907-46	TRANSISTOR IMZ1
Q182	8-729-903-10	TRANSISTOR FMW1
Q184	8-729-320-17	TRANSISTOR 2SA1122CD
Q201	8-729-102-07	TRANSISTOR 2SC2223
Q202	8-729-202-38	TRANSISTOR 2SC3326N
Q203	8-729-202-38	TRANSISTOR 2SC3326N
Q204	8-729-904-07	TRANSISTOR FMG2
Q206	8-729-122-63	TRANSISTOR 2SA1226
Q207	8-729-202-38	TRANSISTOR 2SC3326N
Q208	8-729-201-27	TRANSISTOR 2SC2715
Q209	8-729-201-27	TRANSISTOR 2SC2715
Q210	8-729-102-07	TRANSISTOR 2SC2223
Q211	8-729-102-07	TRANSISTOR 2SC2223
Q212	8-729-901-01	TRANSISTOR DTC144EK
Q213	8-729-901-06	TRANSISTOR DTA144EK
Q214	8-729-102-07	TRANSISTOR 2SC2223
Q215	8-729-902-96	TRANSISTOR FMS1
Q217	8-729-102-07	TRANSISTOR 2SC2223
Q218	8-729-102-07	TRANSISTOR 2SC2223
Q219	8-729-901-01	TRANSISTOR DTC144EK
Q299	8-729-901-06	TRANSISTOR DTA144EK
Q301	8-729-100-66	TRANSISTOR 2SC1623
Q302	8-729-100-66	TRANSISTOR 2SC1623
Q305	8-729-100-66	TRANSISTOR 2SC1623
Q306	8-729-100-66	TRANSISTOR 2SC1623
Q307	8-729-100-66	TRANSISTOR 2SC1623
Q309	8-729-100-66	TRANSISTOR 2SC1623
Q310	8-729-100-66	TRANSISTOR 2SC1623
Q311	8-729-100-66	TRANSISTOR 2SC1623
Q312	8-729-901-06	TRANSISTOR DTA144EK
Q313	8-729-320-17	TRANSISTOR 2SA1122CD
Q314	8-729-100-66	TRANSISTOR 2SC1623
Q315	8-729-100-66	TRANSISTOR 2SC1623
Q316	8-729-901-01	TRANSISTOR DTC144EK
Q317	8-729-100-66	TRANSISTOR 2SC1623
Q318	8-729-901-06	TRANSISTOR DTA144EK
Q319	8-729-100-66	TRANSISTOR 2SC1623
Q320	8-729-901-01	TRANSISTOR DTC144EK
Q321	8-729-901-01	TRANSISTOR DTC144EK
Q322	8-729-320-17	TRANSISTOR 2SA1122CD
Q323	8-729-901-01	TRANSISTOR DTC144EK
Q324	8-729-901-01	TRANSISTOR DTC144EK
Q325	8-729-901-06	TRANSISTOR DTA144EK
Q326	8-729-901-06	TRANSISTOR DTA144EK
Q328	8-729-100-66	TRANSISTOR 2SC1623
Q401	8-729-100-66	TRANSISTOR 2SC1623
Q402	8-729-100-66	TRANSISTOR 2SC1623
Q403	8-729-901-01	TRANSISTOR DTC144EK
Q404	8-729-901-01	TRANSISTOR DTC144EK
Q405	8-729-901-06	TRANSISTOR DTA144EK
Q406	8-729-100-66	TRANSISTOR 2SC1623
Q407	8-729-320-17	TRANSISTOR 2SA1122CD
Q408	8-729-320-17	TRANSISTOR 2SA1122CD
Q409	8-729-100-66	TRANSISTOR 2SC1623
Q410	8-729-320-17	TRANSISTOR 2SA1122CD
Q411	8-729-901-01	TRANSISTOR DTC144EK
Q412	8-729-901-01	TRANSISTOR DTC144EK
Q413	8-729-901-01	TRANSISTOR DTC144EK
Q414	8-729-100-66	TRANSISTOR 2SC1623
Q415	8-729-320-17	TRANSISTOR 2SA1122CD
Q416	8-729-320-17	TRANSISTOR 2SA1122CD
Q417	8-729-901-01	TRANSISTOR DTC144EK
Q418	8-729-100-66	TRANSISTOR 2SC1623
Q419	8-729-100-66	TRANSISTOR 2SC1623
Q420	8-729-202-38	TRANSISTOR 2SC3326N
Q421	8-729-202-38	TRANSISTOR 2SC3326N
Q422	8-729-100-66	TRANSISTOR 2SC1623
Q423	8-729-100-66	TRANSISTOR 2SC1623
Q424	8-729-901-01	TRANSISTOR DTC144EK
Q425	8-729-100-66	TRANSISTOR 2SC1623
Q426	8-729-100-66	TRANSISTOR 2SC1623
Q427	8-729-320-17	TRANSISTOR 2SA1122CD
Q428	8-729-320-17	TRANSISTOR 2SA1122CD
Q429	8-729-901-01	TRANSISTOR DTC144EK
Q430	8-729-901-01	TRANSISTOR DTC144EK
Q431	8-729-320-17	TRANSISTOR 2SA1122CD
Q501	8-729-901-06	TRANSISTOR DTA144EK
Q502	8-729-901-01	TRANSISTOR DTC144EK
Q503	8-729-901-00	TRANSISTOR DTC124EK
Q601	8-729-901-01	TRANSISTOR DTC144EK
Q603	8-729-901-01	TRANSISTOR DTC144EK
Q604	8-729-100-66	TRANSISTOR 2SC1623
Q605	8-729-100-66	TRANSISTOR 2SC1623
Q606	8-729-901-01	TRANSISTOR DTC144EK
Q607	8-729-100-66	TRANSISTOR 2SC1623
Q608	8-729-320-17	TRANSISTOR 2SA1122CD
Q701	8-729-901-01	TRANSISTOR DTC144EK
Q702	8-729-216-22	TRANSISTOR 2SA1162
Q703	8-729-216-22	TRANSISTOR 2SA1162
Q704	8-729-216-22	TRANSISTOR 2SA1162
Q705	8-729-320-17	TRANSISTOR 2SA1122CD
Q706	8-729-901-01	TRANSISTOR DTC144EK
Q707	8-729-901-01	TRANSISTOR DTC144EK
Q708	8-729-216-22	TRANSISTOR 2SA1162
Q709	8-729-216-22	TRANSISTOR 2SA1162
Q710	8-729-320-17	TRANSISTOR 2SA1122CD
Q801	8-729-901-01	TRANSISTOR DTC144EK
Q802	8-729-320-17	TRANSISTOR 2SA1122CD
Q803	8-729-216-22	TRANSISTOR 2SA1162
Q804	8-729-216-22	TRANSISTOR 2SA1162
Q805	8-729-216-22	TRANSISTOR 2SA1162
Q806	8-729-320-17	TRANSISTOR 2SA1122CD
Q807	8-729-901-01	TRANSISTOR DTC144EK
Q808	8-729-216-22	TRANSISTOR 2SA1162
Q809	8-729-216-22	TRANSISTOR 2SA1162
Q810	8-729-320-17	TRANSISTOR 2SA1122CD
Q811	8-729-901-01	TRANSISTOR DTC144EK
Q851	8-729-100-66	TRANSISTOR 2SC1623
Q852	8-729-100-66	TRANSISTOR 2SC1623
Q901	8-729-901-00	TRANSISTOR DTC124EK
Q902	8-729-901-01	TRANSISTOR DTC144EK
Q903	8-729-104-25	TRANSISTOR 2SB804-AV
Q904	8-729-100-66	TRANSISTOR 2SC1623

* A-7061-820-A HK-4 BOARD, COMPLETE
****

(DIODE)

D101	8-719-400-18	DIODE MA152WK
D102	8-719-400-18	DIODE MA152WK
D105	8-719-800-76	DIODE 1SS226
D106	8-719-400-18	DIODE MA152WK
D107	8-719-400-18	DIODE MA152WK
D108	8-719-400-18	DIODE MA152WK
D109	8-719-400-18	DIODE MA152WK
D301	8-719-400-18	DIODE MA152WK
D302	8-719-400-18	DIODE MA152WK
D401	8-719-400-18	DIODE MA152WK
D402	8-719-400-18	DIODE MA152WK
D403	8-719-400-18	DIODE MA152WK
D404	8-719-400-18	DIODE MA152WK
D405	8-719-400-18	DIODE MA152WK
D501	8-719-400-18	DIODE MA152WK
D701	8-719-104-34	DIODE 1S2836
D702	8-719-400-18	DIODE 1S2837
D801	8-719-400-18	DIODE 1S2837
D802	8-719-400-18	DIODE 1S2837
D803	8-719-104-34	DIODE 1S2836
D901	8-719-400-18	DIODE MA152WK

(IC)

IC101	8-759-233-94	IC TA8607F
IC102	8-759-925-60	IC BA401
IC299	8-759-239-58	IC TC74HC221AF
IC301	8-752-002-XX	IC CX20030
IC401	8-752-031-01	IC CXA1047M
IC501	8-752-003-12	IC CX20031
IC601	8-752-202-10	IC CX22021
IC602	8-752-003-22	IC CX20032
IC603	8-759-914-56	IC CX23054
IC701	8-752-322-24	IC CXL1008M
IC801	8-752-322-24	IC CXL1008M
IC851	8-759-710-05	IC NJM2238M
IC901	8-759-925-74	IC TC74HC04AF
IC902	8-759-925-74	IC TC74HC04AF

(TRANSISTOR)

Q101	8-729-102-07	TRANSISTOR 2SC2223
Q102	8-729-901-04	TRANSISTOR DTA114EK
Q103	8-729-102-07	TRANSISTOR 2SC2223
Q104	8-729-901-01	TRANSISTOR DTC144EK
Q105	8-729-904-07	TRANSISTOR FMG2-T-148
Q107	8-729-100-66	TRANSISTOR 2SC1623
Q110	8-729-901-01	TRANSISTOR DTC144EK
Q111	8-729-102-07	TRANSISTOR 2SC2223
Q112	8-729-901-01	TRANSISTOR DTC144EK
Q113	8-729-102-07	TRANSISTOR 2SC2223
Q116	8-729-102-07	TRANSISTOR 2SC2223
Q117	8-729-102-07	TRANSISTOR 2SC2223
Q118	8-729-102-07	TRANSISTOR 2SC2223
Q119	8-729-102-07	TRANSISTOR 2SC2223
Q120	8-729-102-07	TRANSISTOR 2SC2223
Q121	8-729-100-66	TRANSISTOR 2SC1623
Q122	8-729-901-01	TRANSISTOR DTC144EK
Q123	8-729-901-01	TRANSISTOR DTC144EK
Q124	8-729-901-06	TRANSISTOR DTA144EK
Q125	8-729-901-01	TRANSISTOR DTC144EK
Q126	8-729-100-66	TRANSISTOR 2SC1623
Q127	8-729-100-66	TRANSISTOR 2SC1623
Q128	8-729-102-07	TRANSISTOR 2SC2223
Q129	8-729-100-66	TRANSISTOR 2SC1623
Q130	8-729-907-26	TRANSISTOR IMX1
Q131	8-729-320-17	TRANSISTOR 2SA1122CD
Q132	8-729-202-38	TRANSISTOR 2SC3326N
Q181	8-729-907-46	TRANSISTOR IMZ1
Q182	8-729-903-10	TRANSISTOR FMW1
Q184	8-729-320-17	TRANSISTOR 2SA1122CD
Q201	8-729-102-07	TRANSISTOR 2SC2223
Q202	8-729-202-38	TRANSISTOR 2SC3326N
Q203	8-729-202-38	TRANSISTOR 2SC3326N
Q204	8-729-904-07	TRANSISTOR FMG2
Q206	8-729-122-63	TRANSISTOR 2SA1226
Q207	8-729-202-38	TRANSISTOR 2SC3326N
Q208	8-729-201-27	TRANSISTOR 2SC2715
Q209	8-729-201-27	TRANSISTOR 2SC2715
Q210	8-729-102-07	TRANSISTOR 2SC2223
Q211	8-729-102-07	TRANSISTOR 2SC2223
Q212	8-729-901-01	TRANSISTOR DTC144EK
Q213	8-729-901-06	TRANSISTOR DTA144EK
Q214	8-729-102-07	TRANSISTOR 2SC2223
Q215	8-729-902-96	TRANSISTOR FMS1
Q217	8-729-102-07	TRANSISTOR 2SC2223
Q218	8-729-102-07	TRANSISTOR 2SC2223
Q219	8-729-901-01	TRANSISTOR DTC144EK
Q299	8-729-901-06	TRANSISTOR DTA144EK
Q301	8-729-100-66	TRANSISTOR 2SC1623
Q302	8-729-100-66	TRANSISTOR 2SC1623
Q305	8-729-100-66	TRANSISTOR 2SC1623
Q306	8-729-100-66	TRANSISTOR 2SC1623
Q307	8-729-100-66	TRANSISTOR 2SC1623
Q309	8-729-100-66	TRANSISTOR 2SC1623
Q310	8-729-100-66	TRANSISTOR 2SC1623
Q311	8-729-100-66	TRANSISTOR 2SC1623
Q312	8-729-901-06	TRANSISTOR DTA144EK
Q313	8-729-320-17	TRANSISTOR 2SA1122CD
Q314	8-729-100-66	TRANSISTOR 2SC1623
Q315	8-729-100-66	TRANSISTOR 2SC1623
Q316	8-729-901-01	TRANSISTOR DTC144EK
Q317	8-729-100-66	TRANSISTOR 2SC1623
Q318	8-729-901-06	TRANSISTOR DTA144EK
Q319	8-729-100-66	TRANSISTOR 2SC1623
Q320	8-729-901-01	TRANSISTOR DTC144EK
Q321	8-729-901-01	TRANSISTOR DTC144EK
Q322	8-729-320-17	TRANSISTOR 2SA1122CD
Q323	8-729-901-01	TRANSISTOR DTC144EK
Q324	8-729-901-01	TRANSISTOR DTC144EK
Q325	8-729-901-06	TRANSISTOR DTA144EK
Q326	8-729-901-06	TRANSISTOR DTA144EK
Q328	8-729-100-66	TRANSISTOR 2SC1623
Q401	8-729-100-66	TRANSISTOR 2SC1623
Q402	8-729-100-66	TRANSISTOR 2SC1623
Q403	8-729-901-01	TRANSISTOR DTC144EK
Q404	8-729-901-01	TRANSISTOR DTC144EK
Q405	8-729-901-06	TRANSISTOR DTA144EK
Q406	8-729-100-66	TRANSISTOR 2SC1623
Q407	8-729-320-17	TRANSISTOR 2SA1122CD
Q408	8-729-320-17	TRANSISTOR 2SA1122CD
Q409	8-729-100-66	TRANSISTOR 2SC1623
Q410	8-729-320-17	TRANSISTOR 2SA1122CD
Q411	8-729-901-01	TRANSISTOR DTC144EK
Q412	8-729-901-01	TRANSISTOR DTC144EK
Q413	8-729-901-01	TRANSISTOR DTC144EK
Q414	8-729-100-66	TRANSISTOR 2SC1623
Q415	8-729-320-17	TRANSISTOR 2SA1122CD
Q416	8-729-320-17	TRANSISTOR 2SA1122CD
Q417	8-729-901-01	TRANSISTOR DTC144EK
Q418	8-729-100-66	TRANSISTOR 2SC1623
Q419	8-729-100-66	TRANSISTOR 2SC1623
Q420	8-729-202-38	TRANSISTOR 2SC3326N
Q421	8-729-202-38	TRANSISTOR 2SC3326N
Q422	8-729-100-66	TRANSISTOR 2SC1623
Q423	8-729-100-66	TRANSISTOR 2SC1623
Q424	8-729-901-01	TRANSISTOR DTC144EK
Q425	8-729-100-66	TRANSISTOR 2SC1623
Q426	8-729-100-66	TRANSISTOR 2SC1623
Q427	8-729-320-17	TRANSISTOR 2SA1122CD
Q428	8-729-320-17	TRANSISTOR 2SA1122CD
Q429	8-729-901-01	TRANSISTOR DTC144EK
Q430	8-729-901-01	TRANSISTOR DTC144EK
Q431	8-729-320-17	TRANSISTOR 2SA1122CD
Q501	8-729-901-06	TRANSISTOR DTA144EK
Q502	8-729-901-01	TRANSISTOR DTC144EK
Q503	8-729-901-00	TRANSISTOR DTC124EK
Q601	8-729-901-01	TRANSISTOR DTC144EK
Q603	8-729-901-01	TRANSISTOR DTC144EK
Q604	8-729-100-66	TRANSISTOR 2SC1623
Q605	8-729-100-66	TRANSISTOR 2SC1623
Q606	8-729-901-01	TRANSISTOR DTC144EK
Q607	8-729-100-66	TRANSISTOR 2SC1623
Q608	8-729-320-17	TRANSISTOR 2SA1122CD
Q701	8-729-901-01	TRANSISTOR DTC144EK
Q702	8-729-216-22	TRANSISTOR 2SA1162
Q703	8-729-216-22	TRANSISTOR 2SA1162
Q704	8-729-216-22	TRANSISTOR 2SA1162
Q705	8-729-320-17	TRANSISTOR 2SA1122CD
Q706	8-729-901-01	TRANSISTOR DTC144EK
Q707	8-729-901-01	TRANSISTOR DTC144EK
Q708	8-729-216-22	TRANSISTOR 2SA1162
Q709	8-729-216-22	TRANSISTOR 2SA1162
Q710	8-729-320-17	TRANSISTOR 2SA1122CD
Q801	8-729-901-01	TRANSISTOR DTC144EK
Q802	8-729-320-17	TRANSISTOR 2SA1122CD
Q803	8-729-216-22	TRANSISTOR 2SA1162
Q804	8-729-216-22	TRANSISTOR 2SA1162
Q805	8-729-216-22	TRANSISTOR 2SA1162
Q806	8-729-320-17	TRANSISTOR 2SA1122CD
Q807	8-729-901-01	TRANSISTOR DTC144EK
Q808	8-729-216-22	TRANSISTOR 2SA1162
Q809	8-729-216-22	TRANSISTOR 2SA1162
Q810	8-729-320-17	TRANSISTOR 2SA1122CD
Q811	8-729-901-01	TRANSISTOR DTC144EK
Q851	8-729-100-66	TRANSISTOR 2SC1623
Q852	8-729-100-66	TRANSISTOR 2SC1623
Q901	8-729-901-00	TRANSISTOR DTC124EK
Q902	8-729-901-01	TRANSISTOR DTC144EK
Q903	8-729-104-25	TRANSISTOR 2SB804-AV
Q904	8-729-100-66	TRANSISTOR 2SC1623

HK-4 (C VIDEO PROCESS, Y VIDEO PROCESS, Y/C/AFM MIX) PRINTED WIRING BO

— Ref. No. HK-4 BOARD: 4000 series —

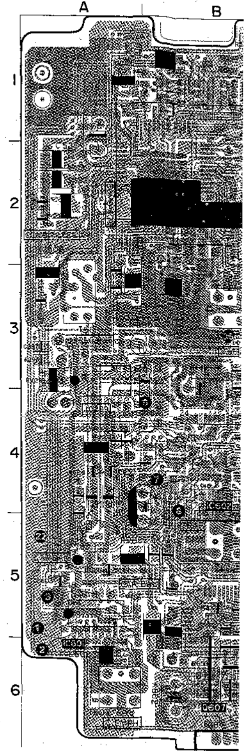
HK-4 BOARD (COMPONENT SIDE)

D404	D-2
D701	G-3
D803	G-6
D901	F-6
IC101	E-5
IC102	E-5
IC301	E-2
IC401	C-1
IC601	A-5
IC602	B-4
IC701	G-3
IC801	G-5
IC851	G-4
IC901	C-6
IC902	C-5
Q105	D-5
Q107	F-6
Q112	D-5
Q124	F-4
Q125	E-6
Q126	E-6
Q130	D-6
Q181	F-6
Q182	F-5
Q202	D-4
Q203	D-4
Q204	D-4
Q215	D-5
Q219	D-4
Q306	F-2
Q307	F-2
Q315	F-2
Q316	F-2
Q317	F-3
Q322	D-2
Q323	D-1
Q324	E-3
Q325	F-2
Q402	C-3
Q405	D-2
Q413	D-1
Q414	E-3
Q417	D-2
Q422	D-3
Q423	D-3
Q426	D-1
Q427	C-3
Q602	A-5
Q603	B-5
Q604	C-5
Q605	C-4
Q607	B-6
Q608	C-6
Q701	G-2
Q801	H-4
Q802	G-6
Q903	F-5

HK-4 BOARD (CONDUCTOR SIDE)

D101	D-6
D102	D-5
D105	E-4
D106	F-4
D107	F-4
D108	D-4
D301	D-1
D302	E-1
D401	D-2
D402	D-1
D403	D-1
D405	D-2
D501	C-1
D702	F-3
D801	G-6
D802	G-6
IC501	B-2
IC603	B-5
Q101	E-6
Q102	E-5
Q103	E-5
Q104	E-5
Q110	D-5
Q111	E-5
Q113	E-4
Q116	F-4
Q117	E-4
Q118	F-4
Q119	E-4
Q120	F-4
Q121	D-4
Q122	E-5
Q123	E-5
Q127	E-6
Q128	E-6
Q129	D-6
Q131	D-6
Q184	F-5
Q201	D-4
Q206	D-4
Q207	C-4
Q208	C-4
Q209	C-5
Q210	D-5
Q211	D-5
Q212	D-5
Q213	C-5
Q214	C-6
Q217	D-5
Q218	D-6
Q301	E-1
Q302	G-1
Q305	G-1
Q309	F-1
Q310	F-2
Q311	F-2
Q312	F-3
Q313	F-3
Q314	F-2
Q318	F-1
Q319	E-1
Q320	E-1
Q321	E-2
Q326	F-3
Q328	F-2
Q401	C-3
Q403	D-3
Q404	D-3
Q406	E-2
Q407	C-2
Q408	D-3
Q409	D-3
Q410	D-3
Q411	D-3
Q412	E-2
Q415	D-2
Q416	D-2
Q418	D-1
Q419	D-2
Q420	D-1
Q421	C-1
Q424	C-2
Q425	E-3
Q428	C-3
Q429	C-3
Q430	C-4
Q431	C-3
Q501	C-1
Q502	C-1
Q503	B-1
Q601	B-4
Q606	C-4
Q702	G-2
Q703	G-2
Q704	G-2
Q705	G-1
Q706	H-3
Q707	H-3
Q708	H-3
Q709	H-2
Q710	H-2
Q803	G-5
Q804	G-5
Q805	G-5
Q806	H-4
Q807	H-6
Q808	H-6
Q809	H-5
Q810	H-5
Q811	G-5
Q851	G-4
Q852	H-4
Q901	F-6
Q902	F-6

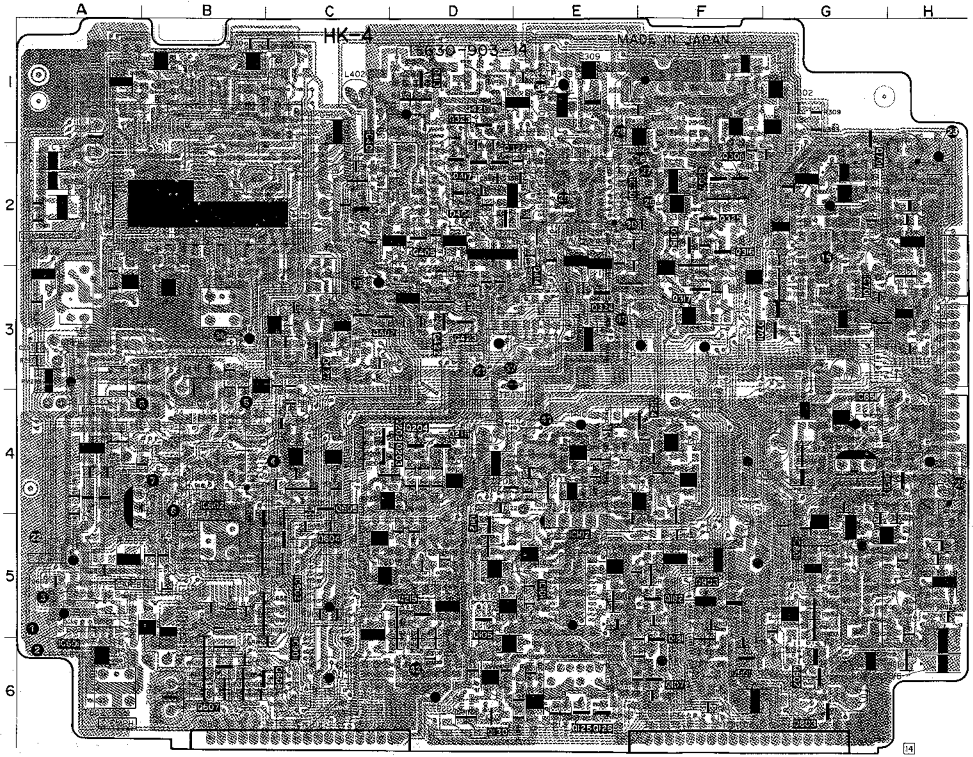
HK-4 BOARD (COMPONENT SIDE)



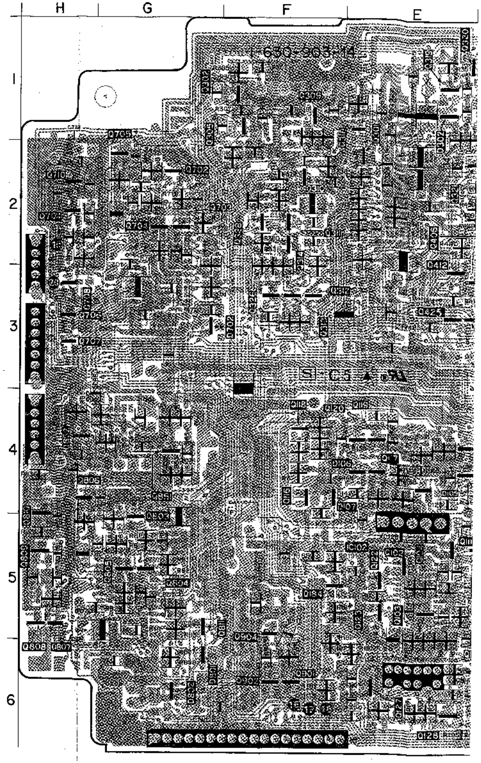
Y VIDEO PROCESS, Y/C/AFM MIX) PRINTED WIRING BOARD

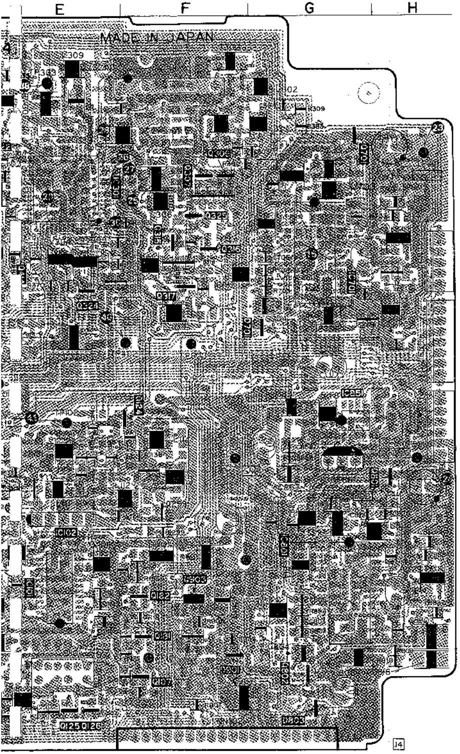
02	G-2
03	G-2
04	G-2
05	G-1
06	H-3
07	H-3
08	H-3
09	H-2
10	H-2
03	G-5
04	G-5
05	G-5
06	H-4
07	H-6
08	H-6
09	H-5
10	H-5
11	G-5
51	G-4
52	H-4
01	F-6
02	F-6

HK-4 BOARD (COMPONENT SIDE)

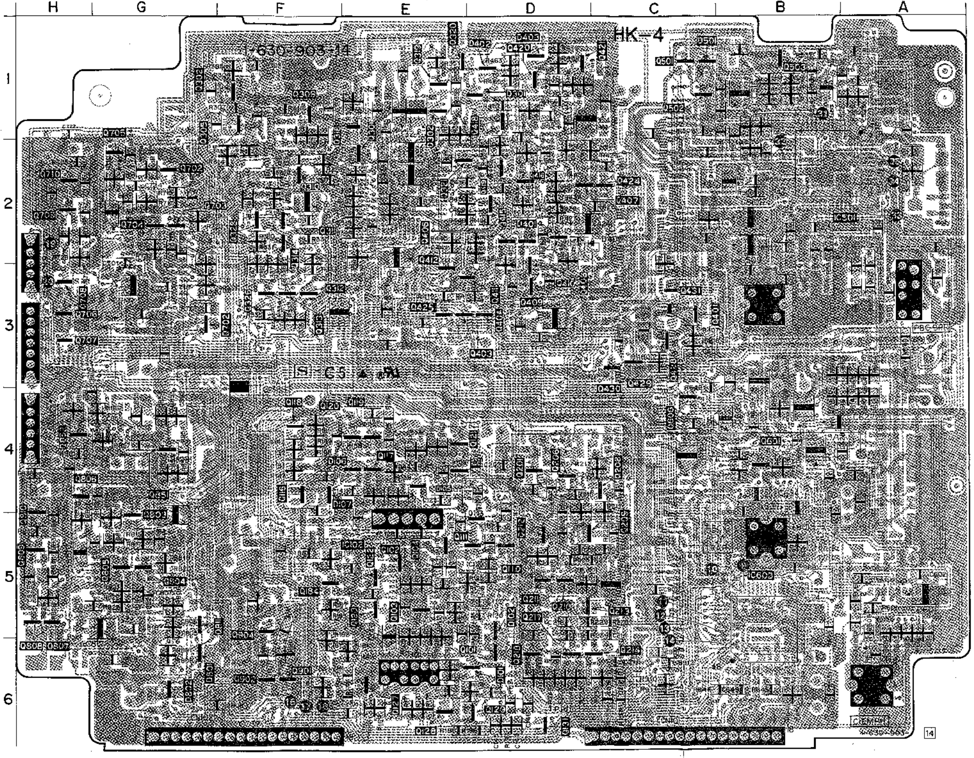

A
B
C
D
E
F
G
H
1
2
3
4
5
6
HK-4
1-630-903-14
MADE IN JAPAN
L402
14

HK-4 BOARD (CONDUCTOR SIDE)


H
G
F
E
1
2
3
4
5
6
1-630-903-14

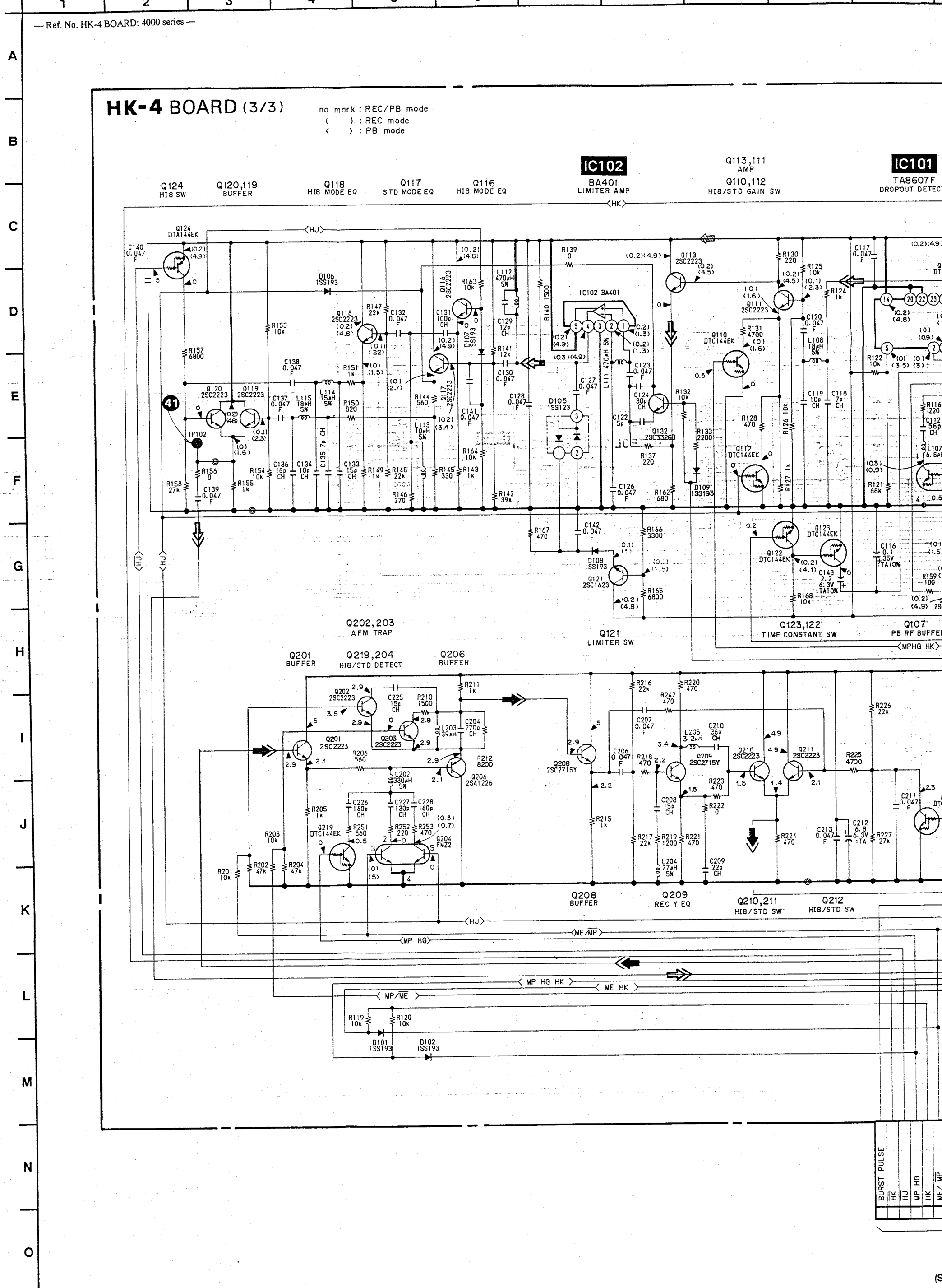

E
F
G
H
MADE IN JAPAN

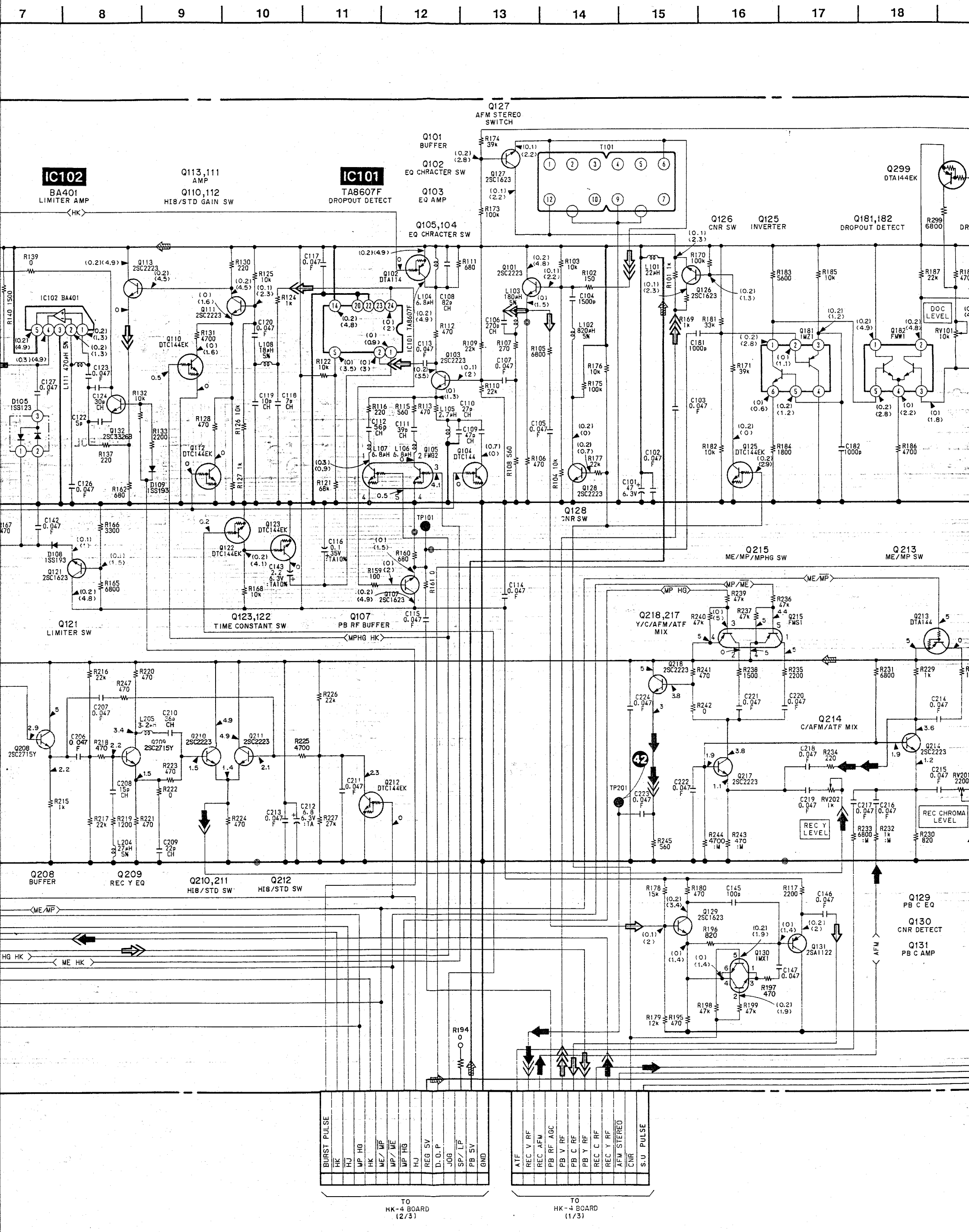
HK-4 BOARD (CONDUCTOR SIDE)


H
G
F
E
D
C
B
A
1
2
3
4
5
6
HK-4
1-630-903-14

HK-4 (Y/C/AFM MIX) SCHEMATIC DIAGRAM

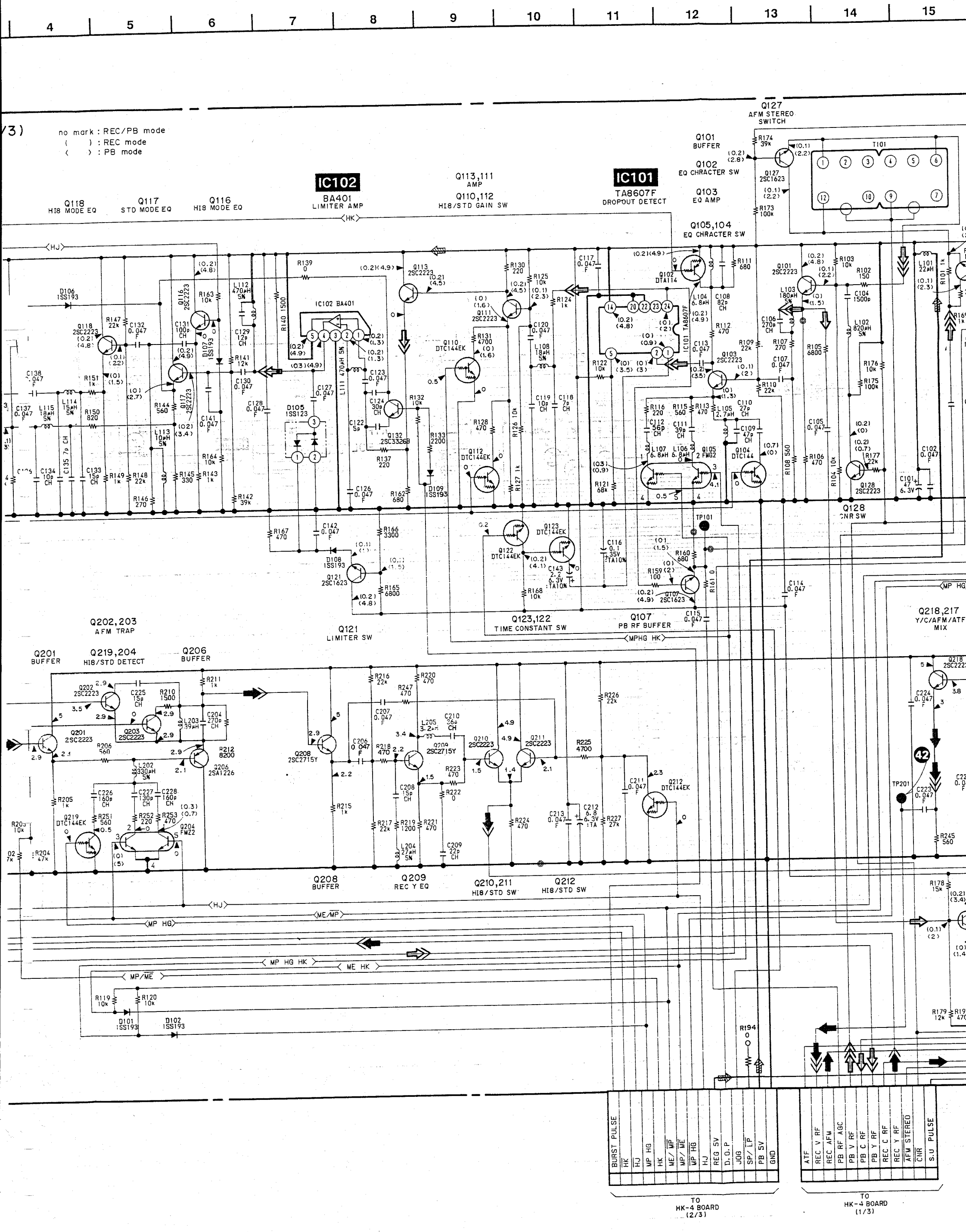
— Ref. No. HK-4 BOARD: 4000 series —


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
HK-4 BOARD (3/3)
no mark : REC/PB mode
( ) : REC mode
〈 〉 : PB mode
Q124 HI8 SW
Q120,119 BUFFER
Q118 HI8 MODE EQ
Q117 STD MODE EQ
Q116 HI8 MODE EQ
IC102 BA401 LIMITER AMP
Q113,111 AMP
Q110,112 HI8/STD GAIN SW
IC101 TA8607F DROPOUT DETECT
IC102 BA401
Q124 DTA144EK
TP102
41
D106 1SS193
D105 1SS123
D108 1SS193
D109 1SS193
Q121 2SC1623
Q121 LIMITER SW
Q123,122 TIME CONSTANT SW
Q107 PB RF BUFFER
Q202,203 AFM TRAP
Q201 BUFFER
Q219,204 HI8/STD DETECT
Q206 BUFFER
Q208 BUFFER
Q209 REC Y EQ
Q210,211 HI8/STD SW
Q212 HI8/STD SW
Q204 FMZ2
Q206 2SA1226
Q208 2SC2715Y
Q209 2SC2715Y
D101 1SS193
D102 1SS193
R119 10k
R120 10k
HK
HJ
MP HG
ME/MP
MP HG HK
ME HK
MP/ME
MPHG HK
BURST PULSE
HK
HJ
MP HG
HK
ME/MP


7
8
9
10
11
12
13
14
15
16
17
18
IC102
BA401
LIMITER AMP
Q113,111
AMP
Q110,112
HI8/STD GAIN SW
IC101
TA8607F
DROPOUT DETECT
Q101
BUFFER
Q102
EQ CHRACTER SW
Q103
EQ AMP
Q127
AFM STEREO
SWITCH
T101
Q105,104
EQ CHRACTER SW
Q126
CNR SW
Q125
INVERTER
Q181,182
DROPOUT DETECT
Q299
DTA144EK
DOC
LEVEL
RV101
Q128
CNR SW
Q121
LIMITER SW
Q123,122
TIME CONSTANT SW
Q107
PB RF BUFFER
TP101
Q215
ME/MP/MPHG SW
Q213
ME/MP SW
Q218,217
Y/C/AFM/ATF
MIX
Q214
C/AFM/ATF MIX
REC Y
LEVEL
REC CHROMA
LEVEL
TP201
42
Q208
BUFFER
Q209
REC Y EQ
Q210,211
HI8/STD SW
Q212
HI8/STD SW
Q129
PB C EQ
Q130
CNR DETECT
Q131
PB C AMP
AFM
ME/MP
HG HK
ME HK
MPHG HK
MP HG
MP/ME
R194
BURST PULSE
HK
HJ
MP HG
HK
ME/MP
MP/ME
MP HG
HJ
REG 5V
D.O.P
JOG
SP/LP
PB 5V
GND
ATF
REC V RF
REC AFM
PB RF AGC
PB V RF
PB C RF
PB Y RF
REC C RF
REC Y RF
AFM STEREO
CNR
S.U PULSE
TO
HK-4 BOARD
(2/3)
TO
HK-4 BOARD
(1/3)

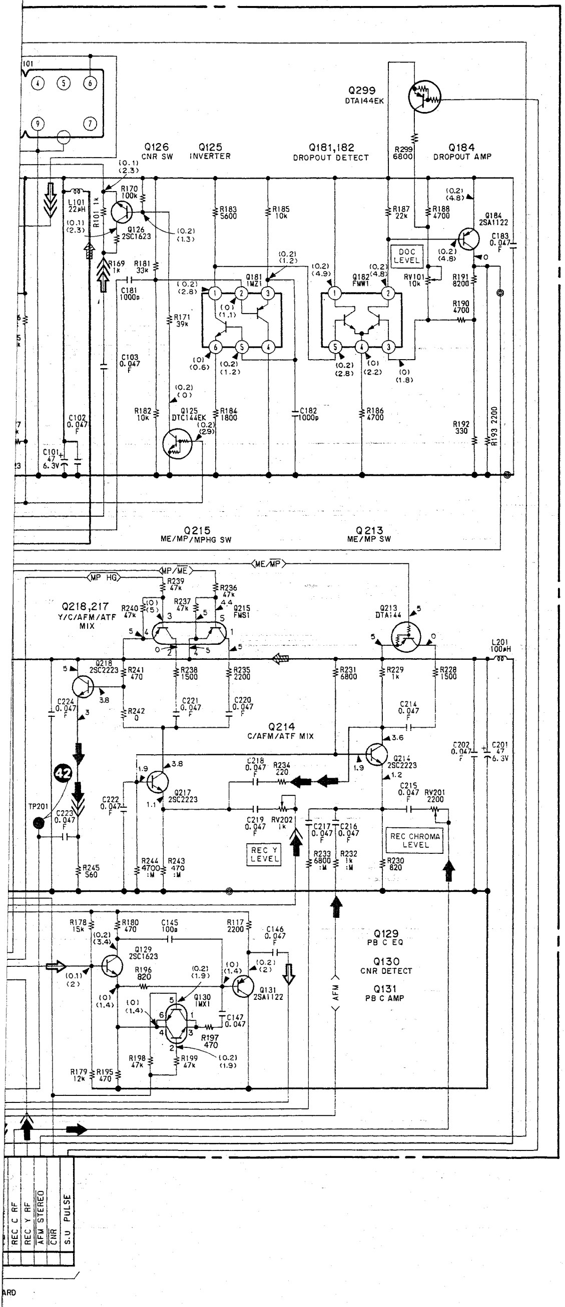
(See Page 96)

(See Page 91)

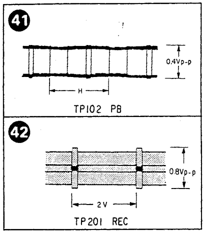

4
5
6
7
8
9
10
11
12
13
14
15
/3)
no mark : REC/PB mode
( ) : REC mode
〈 〉 : PB mode
Q118 HI8 MODE EQ
Q117 STD MODE EQ
Q116 HI8 MODE EQ
IC102 BA401 LIMITER AMP
Q113,111 AMP
Q110,112 HI8/STD GAIN SW
IC101 TA8607F DROPOUT DETECT
Q101 BUFFER
Q102 EQ CHRACTER SW
Q103 EQ AMP
Q105,104 EQ CHRACTER SW
Q127 AFM STEREO SWITCH
T101
Q128 CNR SW
Q121 LIMITER SW
Q123,122 TIME CONSTANT SW
Q107 PB RF BUFFER
Q202,203 AFM TRAP
Q201 BUFFER
Q219,204 HI8/STD DETECT
Q206 BUFFER
Q208 BUFFER
Q209 REC Y EQ
Q210,211 HI8/STD SW
Q212 HI8/STD SW
Q218,217 Y/C/AFM/ATF MIX
TP101
TP201
42
HK
HJ
MPHG HK
ME/MP
MP HG
MP HG HK
ME HK
MP/ME
R194
BURST PULSE
HK
HJ
MP HG
HK
ME/MP
MP/ME
MP HG
HJ
REG 5V
D.O.P
JOG
SP/LP
PB 5V
GND
ATF
REC V RF
REC AFM
PB RF AGC
PB V RF
PB C RF
PB Y RF
REC C RF
REC Y RF
AFM STEREO
CNR
S.U PULSE
TO HK-4 BOARD (2/3)
TO HK-4 BOARD (1/3)

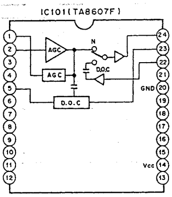
(See Page 96)

(See Page 91)


Q299
DTA144EK
Q126
CNR SW
Q125
INVERTER
Q181,182
DROPOUT DETECT
Q184
DROPOUT AMP
R299 6800
DOC LEVEL
RV101 10k
Q181 IMZ1
Q182 FMW1
Q184 2SA1122
Q126 2SC1623
Q125 DTC144EK
L101 22μH
C101 47 6.3V
Q215
ME/MP/MPHG SW
Q213
ME/MP SW
MP HG
MP/ME
ME/MP
Q218,217
Y/C/AFM/ATF MIX
Q215 FMS1
Q213 DTA144
Q218 2SC2223
L201 100μH
Q214
C/AFM/ATF MIX
Q214 2SC2223
Q217 2SC2223
REC Y LEVEL
REC CHROMA LEVEL
RV202 1k
RV201 2200
TP201
42
Q129
PB C EQ
Q130
CNR DETECT
Q131
PB C AMP
Q129 2SC1623
Q130 IMX1
Q131 2SA1122
AFM
REC C RF
REC Y RF
AFM STEREO
CNR
S.U PULSE
ARD
e 91)

HK-4 BOARD (3/3)

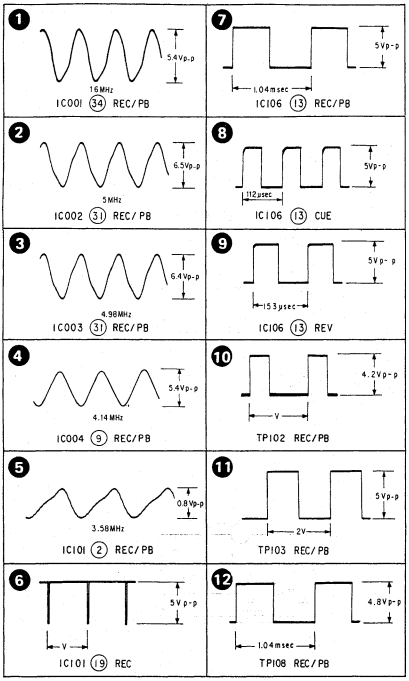

41
0.4Vp-p
H
TP102 PB
42
0.8Vp-p
2V
TP201 REC


IC101 (TA8607F)
AGC
AGC
N
D.O.C
D.O.C
GND
Vcc
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

- **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC	➡	➡≫	➡⋙	➡
PB	⇨	⇨≫	⇨⋙	⇨

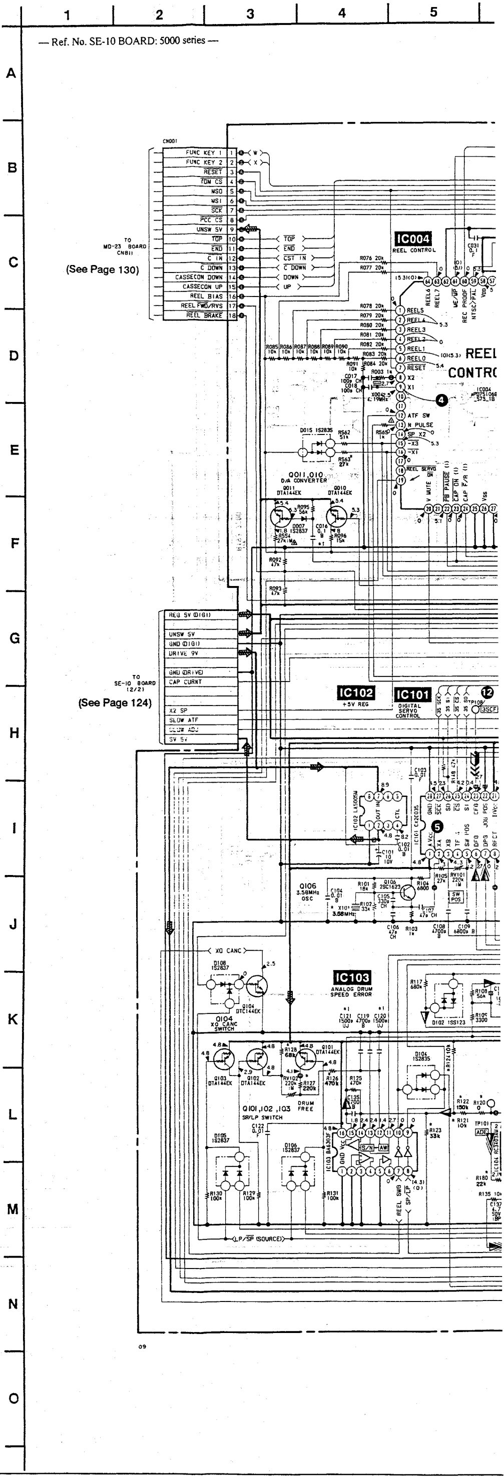
SE-10 BOARD (1/2)

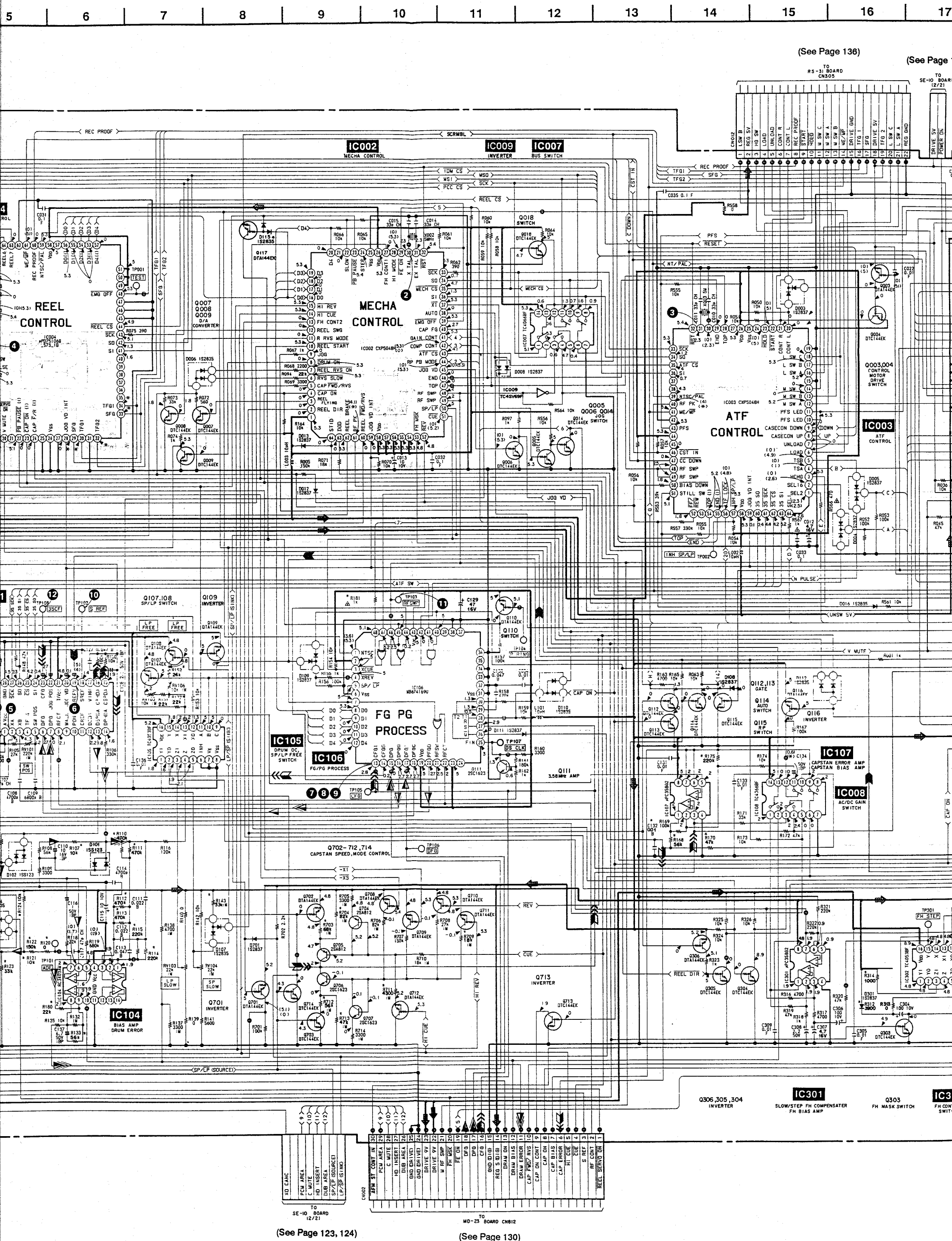


- **SIGNAL PATH**

	REC	REC/PB	PB
Drum speed servo		▷	
Drum phase servo		▷▷	
Drum servo (speed and phase)		▷▷▷	
Capstan speed servo		⇒	
Capstan phase servo		⇒〉	
Capstan servo (speed and phase)		⇒〉〉	
Ref. signal	►		

SE-10 (SERVO, SYSTEM CONTROL) SCHEMATIC DIAGRAM


1
2
3
4
5
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
— Ref. No. SE-10 BOARD: 5000 series —
CN001
FUNC KEY 1
FUNC KEY 2
RESET
FDM CS
MSO
MSI
SCK
PCC CS
UNSW 5V
TOP
END
C IN
C DOWN
CASSECON DOWN
CASSECON UP
REEL BIAS
REEL FWD/RVS
REEL BRAKE
TO MD-23 BOARD CN811
(See Page 130)
TOP
END
CST IN
C DOWN
DOWN
UP
IC004
REEL CONTROL
REEL CONTR
REEL5
REEL4
REEL3
REEL2
REEL1
REEL0
RESET
X2
X1
ATF SW
N PULSE
SP X2
-X3
-X1
REEL SERVO ON
Q011,010
D/A CONVERTER
Q011 DTA144EK
Q010 DTA144EK
D015 1S2835
D007 1S2837
REG 5V (DIGI)
UNSW 5V
GND (DIGI)
DRIVE 9V
GND (DRIVE)
CAP CURNT
X2 SP
SLOW ATF
SV 5V
TO SE-10 BOARD (2/2)
(See Page 124)
IC102
+5V REG
IC101
DIGITAL SERVO CONTROL
IC102 LA5005M
IC101 CX20035
Q106
3.58MHz OSC
Q106 2SC1623
X101 3.58MHz
XO CANC
D108 1S2837
Q104 DTC144EK
Q104
XO CANC SWITCH
IC103
ANALOG DRUM SPEED ERROR
D102 1SS123
Q103 DTA144EK
Q102 DTA144EK
Q101 DTA144EK
Q101,102,103
SP/LP SWITCH
DRUM FREE
D104 1S2835
D105 1S2837
D106 1S2837
IC103 BA6303F
S/N
AW
REEL SW0
SP/LP
LP/SP (SOURCE)
TP101
ADC
❹
❺
⓬
09


5
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7
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10
11
12
13
14
15
16
17
TO RS-31 BOARD CN305
TO SE-10 BOARD (2/2)
REC PROOF
SCRMBL
IC002
MECHA CONTROL
IC009
INVERTER
IC007
BUS SWITCH
REEL CONTROL
IC004 μPD75106B
MECHA CONTROL
IC002 CXP5048H
Q007 Q008 Q009 D/A CONVERTER
Q018 SWITCH
Q005 Q006 Q014 JOG SWITCH
IC009 TC4SV69F
ATF CONTROL
IC003 CXP5048H
IC003
ATF CONTROL
Q003,004 CONTROL MOTOR DRIVE SWITCH
Q107,108 SP/LP SWITCH
Q109 INVERTER
IC105
DRUM DC, SP/LP FREE SWITCH
IC106
FG/PG PROCESS
FG PG PROCESS
IC106 MB674169U
Q110 SWITCH
Q111 3.58MHz AMP
Q112,113 GATE
Q114 AUTO SWITCH
Q115 RP SWITCH
Q116 INVERTER
IC107
CAPSTAN ERROR AMP CAPSTAN BIAS AMP
IC008
AC/DC GAIN SWITCH
Q702-712,714 CAPSTAN SPEED,MODE CONTROL
IC104
BIAS AMP DRUM ERROR
Q701 INVERTER
Q713 INVERTER
Q306,305,304 INVERTER
IC301
SLOW/STEP FH COMPENSATER FH BIAS AMP
Q303 FH MASK SWITCH
IC3
FH CON SWIT
SP/LP (SOURCE)
TO SE-10 BOARD (2/2)
TO MD-23 BOARD CN812

(See Page 136)

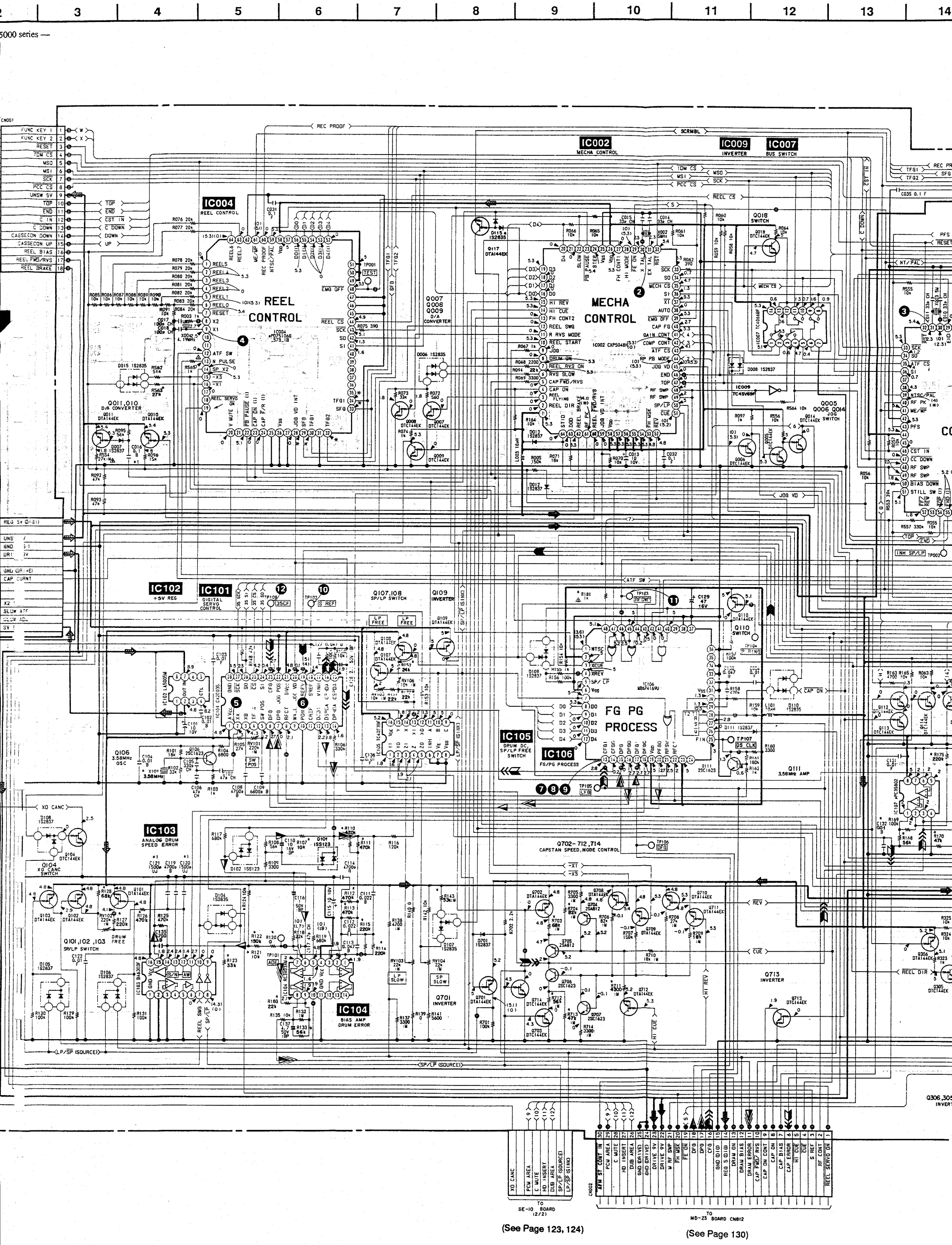
(See Page 1

(See Page 123, 124)

(See Page 130)

M CONTROL) SCHEMATIC DIAGRAM

5000 series —



2
3
4
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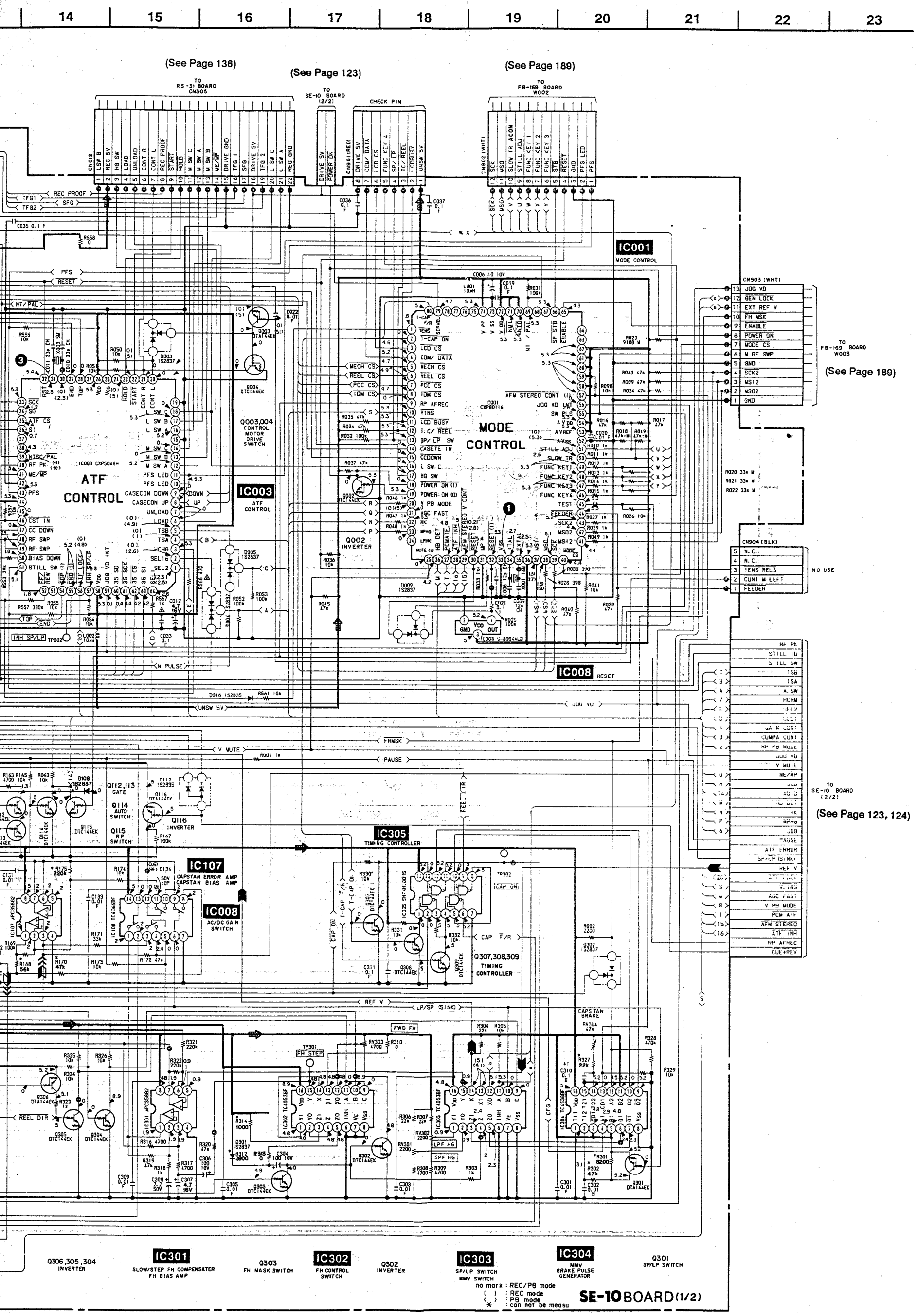
7
8
9
10
11
12
13
14
CN001
FUNC KEY 1
FUNC KEY 2
RESET
TDM CS
MSO
MSI
SCK
PCC CS
UNSW 5V
TOP
END
C IN
C DOWN
CASSECON DOWN
CASSECON UP
REEL BIAS
REEL FWD/RVS
REEL BRAKE
REC PROOF
SCRMBL
IC004
REEL CONTROL
IC004 μPD75106B -573-1B
IC002
MECHA CONTROL
IC002 CXP5048B
IC009
INVERTER
IC007
BUS SWITCH
Q007 Q008 Q009
D/A CONVERTER
Q011,010
D/A CONVERTER
Q018
SWITCH
Q005 Q006
JOG SWITCH
IC102
+5V REG
IC101
DIGITAL SERVO CONTROL
Q107,108
SP/LP SWITCH
Q109
INVERTER
Q110
SWITCH
IC105
DRUM DC, SP/LP FREE SWITCH
IC106
FG/PG PROCESS
FG PG PROCESS
Q106
3.58MHz OSC
Q111
3.58MHz AMP
Q104
XO CANC SWITCH
XO CANC
IC103
ANALOG DRUM SPEED ERROR
Q101,102,103
SP/LP SWITCH
DRUM FREE
IC104
BIAS AMP DRUM ERROR
Q701
INVERTER
Q702-712,714
CAPSTAN SPEED,MODE CONTROL
Q713
INVERTER
Q306,305
INVERT
REV
CUE
REEL DIR
HI CUE
HI REV
JOG VD
ATF SW
LP/SP (SOURCE)
SP/LP (SOURCE)
TP001 TEST
TP002
TP102 S REF
TP103 RF SW
TP104 P RING
TP105 LFG
TP106 DFG
TP107 DS CLK
TP108 3SCF
TP101 ADE
REG 5V (D10)
UNSW 9V
GND
DRIVE 9V
GND (DRIVE)
CAP CURNT
SLOW ATF
SV F
XO CANC
PCM AREA
C MUTE
HD INSERT
DUB AREA
SP/LP (SOURCE)
LP/SP (SINK)
TO SE-10 BOARD (2/2)
CN002
AFM ST CONT IN
PCM AREA
C MUTE
HD INSERT
DUB AREA
GND (DRIVE)
GND (DRIVE)
DRIVE 9V
DRIVE 9V
M RF SWP
FH MSK
FE ON
DFG
CFG
GND (D10)
REG 5 (D10)
DRUM ON
DRUM BIAS
CAP FWD/RVS
CAP DN CONT
CAP ON
CAP BIAS
CAP ERROR
HI CUE
S REF
RF CONT
REEL SERVO ON
TO MD-23 BOARD CN812

(See Page 123, 124)

(See Page 130)

SERVO SYSTEM CONTROL


14
15
16
17
18
19
20
21
22
23
(See Page 136)
TO RS-31 BOARD CN305
(See Page 123)
TO SE-10 BOARD (2/2)
CHECK PIN
(See Page 189)
TO FB-169 BOARD W002
IC001 MODE CONTROL
MODE CONTROL
IC003 ATF CONTROL
ATF CONTROL
Q003,004 CONTROL MOTOR DRIVE SWITCH
Q002 INVERTER
IC008 RESET
CN903 (WHT)
TO FB-169 BOARD W003
(See Page 189)
CN904 (BLK)
NO USE
TO SE-10 BOARD (2/2)
(See Page 123, 124)
IC305 TIMING CONTROLLER
Q307,308,309 TIMING CONTROLLER
IC107 CAPSTAN ERROR AMP CAPSTAN BIAS AMP
IC008 AC/DC GAIN SWITCH
Q112,113 GATE
Q114 AUTO SWITCH
Q115 RP SWITCH
Q116 INVERTER
CAPSTAN BRAKE
Q306,305,304 INVERTER
IC301 SLOW/STEP FH COMPENSATER FH BIAS AMP
Q303 FH MASK SWITCH
IC302 FH CONTROL SWITCH
Q302 INVERTER
IC303 SP/LP SWITCH MMV SWITCH
IC304 MMV BRAKE PULSE GENERATOR
Q301 SP/LP SWITCH
no mark : REC/PB mode
( ) : REC mode
< > : PB mode
* : can not be measu
SE-10 BOARD (1/2)

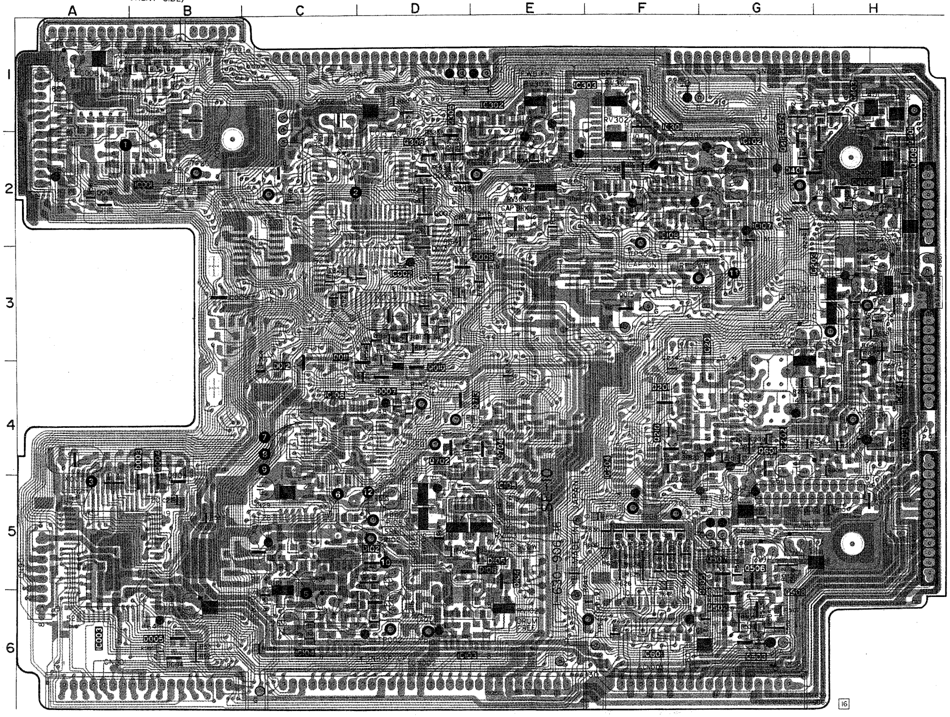
SE-10 (SERVO, SYSTEM CONTROL, ATF SERVO, HEAD SELECT), IG-4 (LINK) PRINTED WIRING BOARDS

— Ref. No. SE-10 BOARD: 5000 series, IG-4 BOARD: 6000 series —

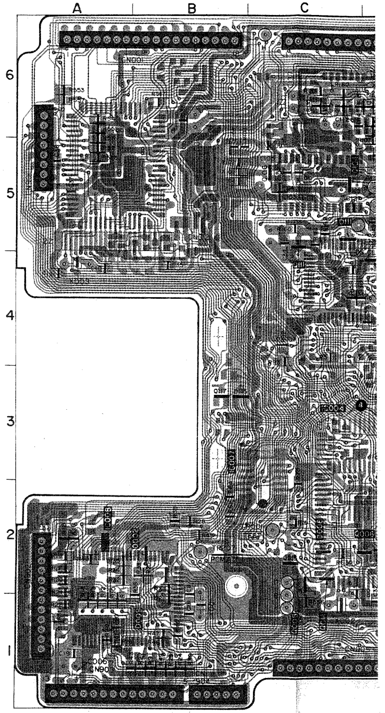
SE-10 BOARD (COMPONENT SIDE)	
D003	B-5
D004	B-6
D005	B-6
D006	D-2
D007	D-4
D012	C-4
D013	D-3
D016	A-2
D101	D-6
D102	D-5
D103	D-5
D104	E-5
D105	E-5
D106	E-5
D201	F-4
D401	G-2
IC001	B-2
IC002	D-3
IC003	A-5
IC101	C-5
IC102	G-2
IC103	D-6
IC104	C-6
IC105	E-5
IC106	C-4
IC107	G-2
IC108	F-2
IC201	G-4
IC202	G-4
IC203	H-3
IC204	F-4
IC205	F-4
IC301	F-2
IC302	E-2
IC303	E-1
IC305	E-3
IC601	F-6
IC602	G-5
IC603	H-4
IC604	H-4
Q003	B-4
Q004	B-4
Q007	D-2
Q009	E-3
Q010	D-4
Q011	C-3
Q015	F-3
Q018	C-2
Q114	D-2
Q210	F-4
Q303	E-2
Q305	D-2
Q306	D-2
Q308	F-2
Q309	E-2
Q401	H-2
Q403	H-1
Q406	H-2
Q408	H-2
Q409	G-2
Q411	G-2
Q502	G-6
Q503	G-6
Q505	G-5
Q506	G-5
Q507	G-5
Q508	G-5
Q601	G-4
Q604	H-3
Q606	H-5
Q702	D-4
Q704	E-4
Q713	E-4

SE-10 BOARD (CONDUCTOR SIDE)	
D008	C-2
D009	B-1
D015	B-4
D107	D-5
D108	D-5
D109	D-4
D110	D-4
D111	C-5
D112	F-3
D203	H-3
D301	E-1
D302	E-2
D701	E-5
IC004	C-3
IC007	C-3
IC008	A-2
IC304	F-3
Q002	B-2
Q005	C-1
Q006	D-2
Q008	D-2
Q014	C-1
Q101	E-6
Q102	E-5
Q103	E-5
Q104	C-5
Q106	B-5
Q107	D-5
Q108	D-5
Q109	D-4
Q110	D-4
Q111	C-4
Q112	D-2
Q113	D-1
Q115	E-2
Q116	F-2
Q202	G-4
Q205	H-3
Q209	F-4
Q301	F-3
Q302	E-1
Q304	D-2
Q307	F-2
Q402	H-1
Q404	H-2
Q405	H-1
Q407	H-2
Q410	G-2
Q504	G-6
Q605	H-3
Q701	D-4
Q703	E-5
Q705	E-4
Q706	E-4
Q707	E-4
Q708	E-4
Q709	E-4
Q710	E-4
Q711	E-4
Q712	E-4
Q714	E-5

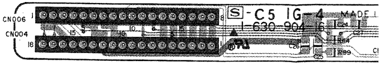
SE-10 BOARD (COMPONENT SIDE)

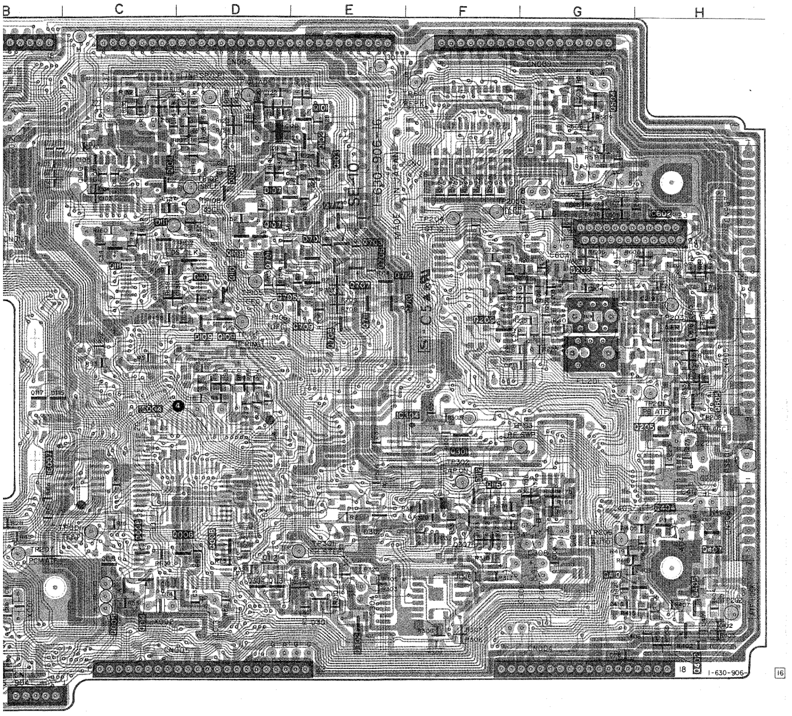

A
B
C
D
E
F
G
H
1
2
3
4
5
6
SE-10
1-630-904-16
IC303
IC302
IC301
IC102
IC107
IC108
IC106
IC105
IC104
IC103
IC601
IC003
IC001
RV301
RV302
CAP BRIDGE
16

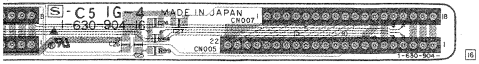
SE-10 BOARD (CONDUCTOR SIDE)


A
B
C
1
2
3
4
5
6
CN001

IG-4 BOARD (CONDUCTOR SIDE)


CN006
CN004
1
18
15
S-C5 IG-4
1-630-904-16
MADE I





* A-7061-823-A SE-10 BOARD, COMPLETE
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(DIODE)

D003	8-719-400-18	DIODE MA152WK
D004	8-719-400-18	DIODE MA152WK
D005	8-719-400-18	DIODE MA152WK
D006	8-719-104-34	DIODE 1S2836
D007	8-719-400-18	DIODE MA152WK
D008	8-719-400-18	DIODE MA152WK
D009	8-719-400-18	DIODE MA152WK
D012	8-719-400-18	DIODE MA152WK
D013	8-719-400-18	DIODE MA152WK
D015	8-719-104-34	DIODE 1S2836
D016	8-719-104-34	DIODE 1S2836
D018	8-719-400-18	DIODE MA152WK
D101	8-719-800-76	DIODE 1SS226
D102	8-719-800-76	DIODE 1SS226
D104	8-719-104-34	DIODE 1S2836
D105	8-719-400-18	DIODE MA152WK
D106	8-719-400-18	DIODE MA152WK
D107	8-719-104-34	DIODE 1S2836
D108	8-719-400-18	DIODE MA152WK
D109	8-719-400-18	DIODE MA152WK
D110	8-719-104-34	DIODE 1S2836
D111	8-719-400-18	DIODE MA152WK
D112	8-719-104-34	DIODE 1S2836
D115	8-719-104-34	DIODE 1S2836
D201	8-719-400-18	DIODE MA152WK
D203	8-719-105-82	DIODE RD5.1M
D203	8-719-105-83	DIODE RD5.1M
D301	8-719-400-18	DIODE MA152WK
D302	8-719-400-18	DIODE MA152WK
D401	8-719-800-76	DIODE 1SS226
D701	8-719-400-18	DIODE MA152WK

(IC)

IC001	8-752-816-72	IC CXP80116-692Q
IC002	8-752-817-63	IC CXP5048H-243Q
IC003	8-752-815-13	IC CXP5048H-222Q
IC004	8-759-144-21	IC uPD75106G-573
IC007	8-759-008-67	IC TC4066BF
IC008	8-759-937-56	IC S-8054ALB-LM
IC009	8-759-209-15	IC TC4SU69F
IC101	8-752-003-50	IC CX20035
IC102	8-759-803-47	IC LA5005M
IC103	8-759-925-66	IC BA6303F
IC104	8-759-981-75	IC RC3403AM
IC105	8-759-300-71	IC TC4053BF
IC106	8-759-971-25	IC MB674169U
IC107	8-759-100-94	IC uPC358G2
IC108	8-759-008-67	IC TC4066BF
IC201	8-759-928-56	IC CXA1042M
IC202	8-759-150-05	IC uPC324G2
IC203	8-759-300-71	IC TC4053BF
IC204	8-759-927-46	IC SN74HC00ANS
IC206	8-759-035-93	IC TC7S32F
IC301	8-759-100-94	IC uPC358G2
IC302	8-759-300-71	IC TC4053BF
IC303	8-759-300-71	IC TC4053BF
IC304	8-759-200-90	IC TC4538BF
IC305	8-759-927-46	IC SN74HC00ANS
IC601	8-759-927-94	IC BU3707F
IC602	8-759-927-52	IC BA7036LS
IC603	8-759-100-93	IC uPC393G2
IC604	8-759-150-05	IC uPC324G2
IC651	8-759-711-79	IC NJM2233BM

(TRANSISTOR)

Q002	8-729-901-01	TRANSISTOR DTC144EK
Q003	8-729-901-06	TRANSISTOR DTA144EK
Q004	8-729-901-01	TRANSISTOR DTC144EK
Q005	8-729-901-01	TRANSISTOR DTC144EK
Q006	8-729-901-01	TRANSISTOR DTC144EK
Q007	8-729-901-01	TRANSISTOR DTC144EK
Q008	8-729-901-01	TRANSISTOR DTC144EK
Q009	8-729-901-01	TRANSISTOR DTC144EK
Q010	8-729-901-06	TRANSISTOR DTA144EK
Q011	8-729-901-06	TRANSISTOR DTA144EK
Q014	8-729-901-01	TRANSISTOR DTC144EK
Q015	8-729-901-01	TRANSISTOR DTC144EK
Q018	8-729-901-01	TRANSISTOR DTC144EK
Q101	8-729-901-06	TRANSISTOR DTA144EK
Q102	8-729-901-06	TRANSISTOR DTA144EK
Q103	8-729-901-06	TRANSISTOR DTA144EK
Q104	8-729-901-01	TRANSISTOR DTC144EK
Q106	8-729-100-66	TRANSISTOR 2SC1623
Q107	8-729-901-06	TRANSISTOR DTA144EK
Q108	8-729-901-06	TRANSISTOR DTA144EK
Q109	8-729-901-06	TRANSISTOR DTA144EK
Q110	8-729-901-06	TRANSISTOR DTA144EK
Q111	8-729-100-66	TRANSISTOR 2SC1623
Q112	8-729-901-01	TRANSISTOR DTC144EK
Q113	8-729-901-01	TRANSISTOR DTC144EK
Q114	8-729-901-01	TRANSISTOR DTC144EK
Q115	8-729-901-01	TRANSISTOR DTC144EK
Q116	8-729-901-06	TRANSISTOR DTA144EK
Q117	8-729-901-06	TRANSISTOR DTA144EK
Q202	8-729-216-22	TRANSISTOR 2SA1162
Q205	8-729-901-01	TRANSISTOR DTC144EK
Q209	8-729-901-06	TRANSISTOR DTA144EK
Q210	8-729-901-01	TRANSISTOR DTC144EK
Q301	8-729-901-06	TRANSISTOR DTA144EK
Q302	8-729-901-01	TRANSISTOR DTC144EK
Q303	8-729-901-01	TRANSISTOR DTC144EK
Q304	8-729-901-01	TRANSISTOR DTC144EK
Q305	8-729-901-01	TRANSISTOR DTC144EK
Q306	8-729-901-06	TRANSISTOR DTA144EK
Q307	8-729-901-01	TRANSISTOR DTC144EK
Q308	8-729-901-01	TRANSISTOR DTC144EK
Q309	8-729-901-01	TRANSISTOR DTC144EK
Q401	8-729-216-22	TRANSISTOR 2SA1162
Q402	8-729-100-66	TRANSISTOR 2SC1623
Q403	8-729-100-66	TRANSISTOR 2SC1623
Q404	8-729-216-22	TRANSISTOR 2SA1162
Q405	8-729-100-66	TRANSISTOR 2SC1623
Q406	8-729-216-22	TRANSISTOR 2SA1162
Q407	8-729-100-66	TRANSISTOR 2SC1623
Q408	8-729-216-22	TRANSISTOR 2SA1162
Q409	8-729-100-66	TRANSISTOR 2SC1623
Q410	8-729-100-66	TRANSISTOR 2SC1623
Q411	8-729-100-66	TRANSISTOR 2SC1623
Q502	8-729-100-66	TRANSISTOR 2SC1623
Q503	8-729-901-06	TRANSISTOR DTA144EK
Q504	8-729-100-66	TRANSISTOR 2SC1623
Q505	8-729-100-66	TRANSISTOR 2SC1623
Q506	8-729-100-66	TRANSISTOR 2SC1623
Q507	8-729-901-06	TRANSISTOR DTA144EK
Q508	8-729-901-06	TRANSISTOR DTA144EK
Q601	8-729-901-06	TRANSISTOR DTA144EK
Q604	8-729-805-25	TRANSISTOR 2SB1121
Q605	8-729-100-66	TRANSISTOR 2SC1623
Q606	8-729-901-06	TRANSISTOR DTA144EK
Q701	8-729-901-06	TRANSISTOR DTA144EK
Q702	8-729-901-06	TRANSISTOR DTA144EK
Q703	8-729-901-01	TRANSISTOR DTC144EK
Q704	8-729-216-22	TRANSISTOR 2SA1162
Q705	8-729-216-22	TRANSISTOR 2SA1162
Q706	8-729-100-66	TRANSISTOR 2SC1623
Q707	8-729-100-66	TRANSISTOR 2SC1623
Q708	8-729-901-06	TRANSISTOR DTA144EK
Q709	8-729-901-06	TRANSISTOR DTA144EK
Q710	8-729-901-06	TRANSISTOR DTA144EK
Q711	8-729-901-06	TRANSISTOR DTA144EK
Q712	8-729-901-06	TRANSISTOR DTA144EK
Q713	8-729-901-01	TRANSISTOR DTC144EK
Q714	8-729-901-01	TRANSISTOR DTC144EK

* A-7061-823-A SE-10 BOARD, COMPLETE
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(DIODE)

D 3	8-719-400-18	DIODE MA152WK
D 4	8-719-400-18	DIODE MA152WK
D005	8-719-400-18	DIODE MA152WK
D006	8-719-104-34	DIODE 1S2836
D 7	8-719-400-18	DIODE MA152WK
D008	8-719-400-18	DIODE MA152WK
D009	8-719-400-18	DIODE MA152WK
D 2	8-719-400-18	DIODE MA152WK
D 3	8-719-400-18	DIODE MA152WK
D015	8-719-104-34	DIODE 1S2836
D 6	8-719-104-34	DIODE 1S2836
D018	8-719-400-18	DIODE MA152WK
D101	8-719-800-76	DIODE 1SS226
D 2	8-719-800-76	DIODE 1SS226
D 4	8-719-104-34	DIODE 1S2836
D105	8-719-400-18	DIODE MA152WK
D 6	8-719-400-18	DIODE MA152WK
D 7	8-719-104-34	DIODE 1S2836
D108	8-719-400-18	DIODE MA152WK
D109	8-719-400-18	DIODE MA152WK
D110	8-719-104-34	DIODE 1S2836
D111	8-719-400-18	DIODE MA152WK
D112	8-719-104-34	DIODE 1S2836
D 5	8-719-104-34	DIODE 1S2836
D201	8-719-400-18	DIODE MA152WK
D 3	8-719-105-82	DIODE RD5.1M
D 3	8-719-105-83	DIODE RD5.1M
D301	8-719-400-18	DIODE MA152WK
D302	8-719-400-18	DIODE MA152WK
D 1	8-719-800-76	DIODE 1SS226
D701	8-719-400-18	DIODE MA152WK

(IC)

IC001	8-752-816-72	IC CXP80116-692Q
02	8-752-817-63	IC CXP5048H-243Q
IC003	8-752-815-13	IC CXP5048H-222Q
IC004	8-759-144-21	IC uPD75106G-573
07	8-759-008-67	IC TC4066BF
IC008	8-759-937-56	IC S-8054ALB-LM
IC009	8-759-209-15	IC TC4SU69F
01	8-752-003-50	IC CX20035
02	8-759-803-47	IC LA5005M
IC103	8-759-925-66	IC BA6303F
04	8-759-981-75	IC RC3403AM
IC105	8-759-300-71	IC TC4053BF
IC106	8-759-971-25	IC MB674169U
07	8-759-100-94	IC uPC358G2
08	8-759-008-67	IC TC4066BF
IC201	8-759-928-56	IC CXA1042M
IC202	8-759-150-05	IC uPC324G2
IC203	8-759-300-71	IC TC4053BF
IC204	8-759-927-46	IC SN74HC00ANS
IC206	8-759-035-93	IC TC7S32F
IC301	8-759-100-94	IC uPC358G2
IC302	8-759-300-71	IC TC4053BF
IC303	8-759-300-71	IC TC4053BF
IC304	8-759-200-90	IC TC4538BF
IC305	8-759-927-46	IC SN74HC00ANS
IC601	8-759-927-94	IC BU3707F
IC602	8-759-927-52	IC BA7036LS
IC603	8-759-100-93	IC uPC393G2
IC604	8-759-150-05	IC uPC324G2
IC651	8-759-711-79	IC NJM2233BM

(TRANSISTOR)

Q002	8-729-901-01	TRANSISTOR DTC144EK
Q003	8-729-901-06	TRANSISTOR DTA144EK
Q004	8-729-901-01	TRANSISTOR DTC144EK
Q005	8-729-901-01	TRANSISTOR DTC144EK
Q006	8-729-901-01	TRANSISTOR DTC144EK
Q007	8-729-901-01	TRANSISTOR DTC144EK
Q008	8-729-901-01	TRANSISTOR DTC144EK
Q009	8-729-901-01	TRANSISTOR DTC144EK
Q010	8-729-901-06	TRANSISTOR DTA144EK
Q011	8-729-901-06	TRANSISTOR DTA144EK
Q014	8-729-901-01	TRANSISTOR DTC144EK
Q015	8-729-901-01	TRANSISTOR DTC144EK
Q018	8-729-901-01	TRANSISTOR DTC144EK
Q101	8-729-901-06	TRANSISTOR DTA144EK
Q102	8-729-901-06	TRANSISTOR DTA144EK
Q103	8-729-901-06	TRANSISTOR DTA144EK
Q104	8-729-901-01	TRANSISTOR DTC144EK
Q106	8-729-100-66	TRANSISTOR 2SC1623
Q107	8-729-901-06	TRANSISTOR DTA144EK
Q108	8-729-901-06	TRANSISTOR DTA144EK
Q109	8-729-901-06	TRANSISTOR DTA144EK
Q110	8-729-901-06	TRANSISTOR DTA144EK
Q111	8-729-100-66	TRANSISTOR 2SC1623
Q112	8-729-901-01	TRANSISTOR DTC144EK
Q113	8-729-901-01	TRANSISTOR DTC144EK
Q114	8-729-901-01	TRANSISTOR DTC144EK
Q115	8-729-901-01	TRANSISTOR DTC144EK
Q116	8-729-901-06	TRANSISTOR DTA144EK
Q117	8-729-901-06	TRANSISTOR DTA144EK
Q202	8-729-216-22	TRANSISTOR 2SA1162
Q205	8-729-901-01	TRANSISTOR DTC144EK
Q209	8-729-901-06	TRANSISTOR DTA144EK
Q210	8-729-901-01	TRANSISTOR DTC144EK
Q301	8-729-901-06	TRANSISTOR DTA144EK
Q302	8-729-901-01	TRANSISTOR DTC144EK
Q303	8-729-901-01	TRANSISTOR DTC144EK
Q304	8-729-901-01	TRANSISTOR DTC144EK
Q305	8-729-901-01	TRANSISTOR DTC144EK
Q306	8-729-901-06	TRANSISTOR DTA144EK
Q307	8-729-901-01	TRANSISTOR DTC144EK
Q308	8-729-901-01	TRANSISTOR DTC144EK
Q309	8-729-901-01	TRANSISTOR DTC144EK
Q401	8-729-216-22	TRANSISTOR 2SA1162
Q402	8-729-100-66	TRANSISTOR 2SC1623
Q403	8-729-100-66	TRANSISTOR 2SC1623
Q404	8-729-216-22	TRANSISTOR 2SA1162
Q405	8-729-100-66	TRANSISTOR 2SC1623
Q406	8-729-216-22	TRANSISTOR 2SA1162
Q407	8-729-100-66	TRANSISTOR 2SC1623
Q408	8-729-216-22	TRANSISTOR 2SA1162
Q409	8-729-100-66	TRANSISTOR 2SC1623
Q410	8-729-100-66	TRANSISTOR 2SC1623
Q411	8-729-100-66	TRANSISTOR 2SC1623
Q502	8-729-100-66	TRANSISTOR 2SC1623
Q503	8-729-901-06	TRANSISTOR DTA144EK
Q504	8-729-100-66	TRANSISTOR 2SC1623
Q505	8-729-100-66	TRANSISTOR 2SC1623
Q506	8-729-100-66	TRANSISTOR 2SC1623
Q507	8-729-901-06	TRANSISTOR DTA144EK
Q508	8-729-901-06	TRANSISTOR DTA144EK
Q601	8-729-901-06	TRANSISTOR DTA144EK
Q604	8-729-805-25	TRANSISTOR 2SB1121
Q605	8-729-100-66	TRANSISTOR 2SC1623
Q606	8-729-901-06	TRANSISTOR DTA144EK
Q701	8-729-901-06	TRANSISTOR DTA144EK
Q702	8-729-901-06	TRANSISTOR DTA144EK
Q703	8-729-901-01	TRANSISTOR DTC144EK
Q704	8-729-216-22	TRANSISTOR 2SA1162
Q705	8-729-216-22	TRANSISTOR 2SA1162
Q706	8-729-100-66	TRANSISTOR 2SC1623
Q707	8-729-100-66	TRANSISTOR 2SC1623
Q708	8-729-901-06	TRANSISTOR DTA144EK
Q709	8-729-901-06	TRANSISTOR DTA144EK
Q710	8-729-901-06	TRANSISTOR DTA144EK
Q711	8-729-901-06	TRANSISTOR DTA144EK
Q712	8-729-901-06	TRANSISTOR DTA144EK
Q713	8-729-901-01	TRANSISTOR DTC144EK
Q714	8-729-901-01	TRANSISTOR DTC144EK

SE-10 (SERVO, SYSTEM CONTROL, ATF SERVO, HEAD SELECT), IG-4 (LINK) PRINTED WIRING BOARDS

— Ref. No. SE-10 BOARD: 5000 series, IG-4 BOARD: 6000 series —

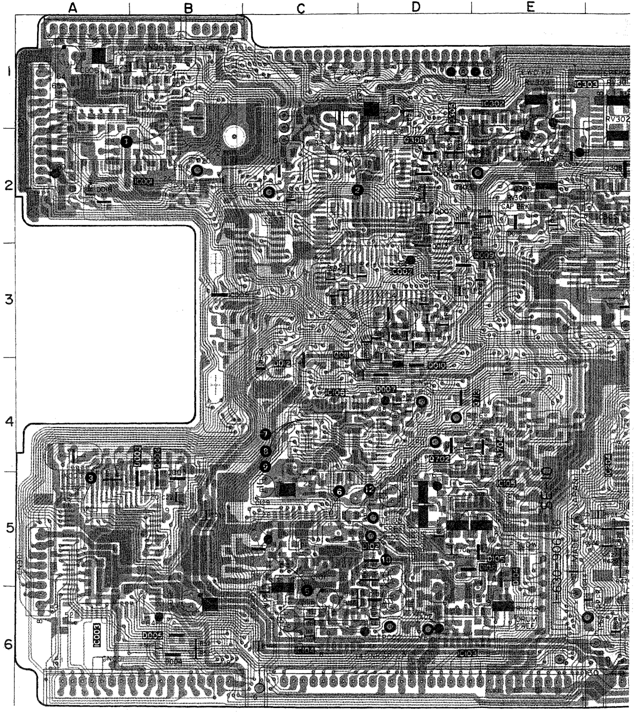
SE-10 BOARD (COMPONENT SIDE)

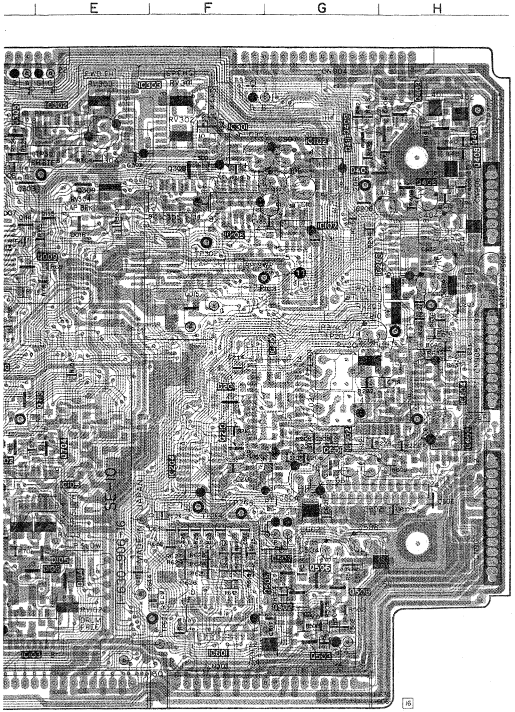
D003	B-5
D004	B-6
D005	B-6
D006	D-2
D007	D-4
D012	C-4
D013	D-3
D016	A-2
D101	D-6
D102	D-5
D103	D-5
D104	E-5
D105	E-5
D106	E-5
D201	F-4
D401	G-2
IC001	B-2
IC002	D-3
IC003	A-5
IC101	C-5
IC102	G-2
IC103	D-6
IC104	C-6
IC105	E-5
IC106	C-4
IC107	G-2
IC108	F-2
IC201	G-4
IC202	G-4
IC203	H-3
IC204	F-4
IC205	F-4
IC301	F-2
IC302	E-2
IC303	E-1
IC305	E-3
IC601	F-6
IC602	G-5
IC603	H-4
IC604	H-4
Q003	B-4
Q004	B-4
Q007	D-2
Q009	E-3
Q010	D-4
Q011	C-3
Q015	F-3
Q018	C-2
Q114	D-2
Q210	F-4
Q303	E-2
Q305	D-2
Q306	D-2
Q308	F-2
Q309	E-2
Q401	H-2
Q403	H-1
Q406	H-2
Q408	H-2
Q409	G-2
Q411	G-2
Q502	G-6
Q503	G-6
Q505	G-5
Q506	G-5
Q507	G-5
Q508	G-5
Q601	G-4
Q604	H-3
Q606	H-5
Q702	D-4
Q704	E-4
Q713	E-4

SE-10 BOARD (CONDUCTOR SIDE)

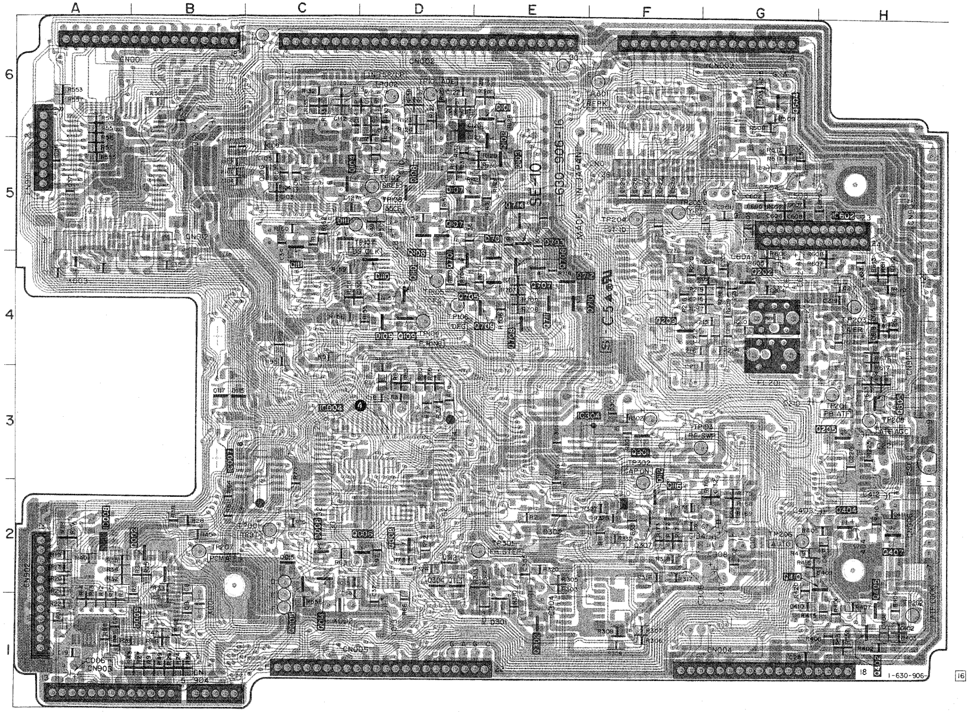
D008	C-2
D009	B-1
D015	B-4
D107	D-5
D108	D-5
D109	D-4
D110	D-4
D111	C-5
D112	F-3
D203	H-3
D301	E-1
D302	E-2
D701	E-5
IC004	C-3
IC007	C-3
IC008	A-2
IC304	F-3
Q002	B-2
Q005	C-1
Q006	D-2
Q008	D-2
Q014	C-1
Q101	E-6
Q102	E-5
Q103	E-5
Q104	C-5
Q106	B-5
Q107	D-5
Q108	D-5
Q109	D-4
Q110	D-4
Q111	C-4
Q112	D-2
Q113	D-1
Q115	E-2
Q116	F-2
Q202	G-4
Q205	H-3
Q209	F-4
Q301	F-3
Q302	E-1
Q304	D-2
Q307	F-2
Q402	H-1
Q404	H-2
Q405	H-1
Q407	H-2
Q410	G-2
Q504	G-6
Q605	H-3
Q701	D-4
Q703	E-5
Q705	E-4
Q706	E-4
Q707	E-4
Q708	E-4
Q709	E-4
Q710	E-4
Q711	E-4
Q712	E-4
Q714	E-5

SE-10 BOARD (COMPONENT SIDE)

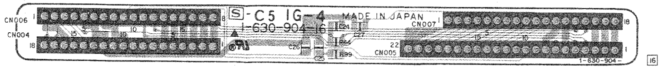



E
F
G
H
SE-10
1-630-906-16
MADE IN JAPAN
CN004
CN003
16

SE-10 BOARD (CONDUCTOR SIDE)

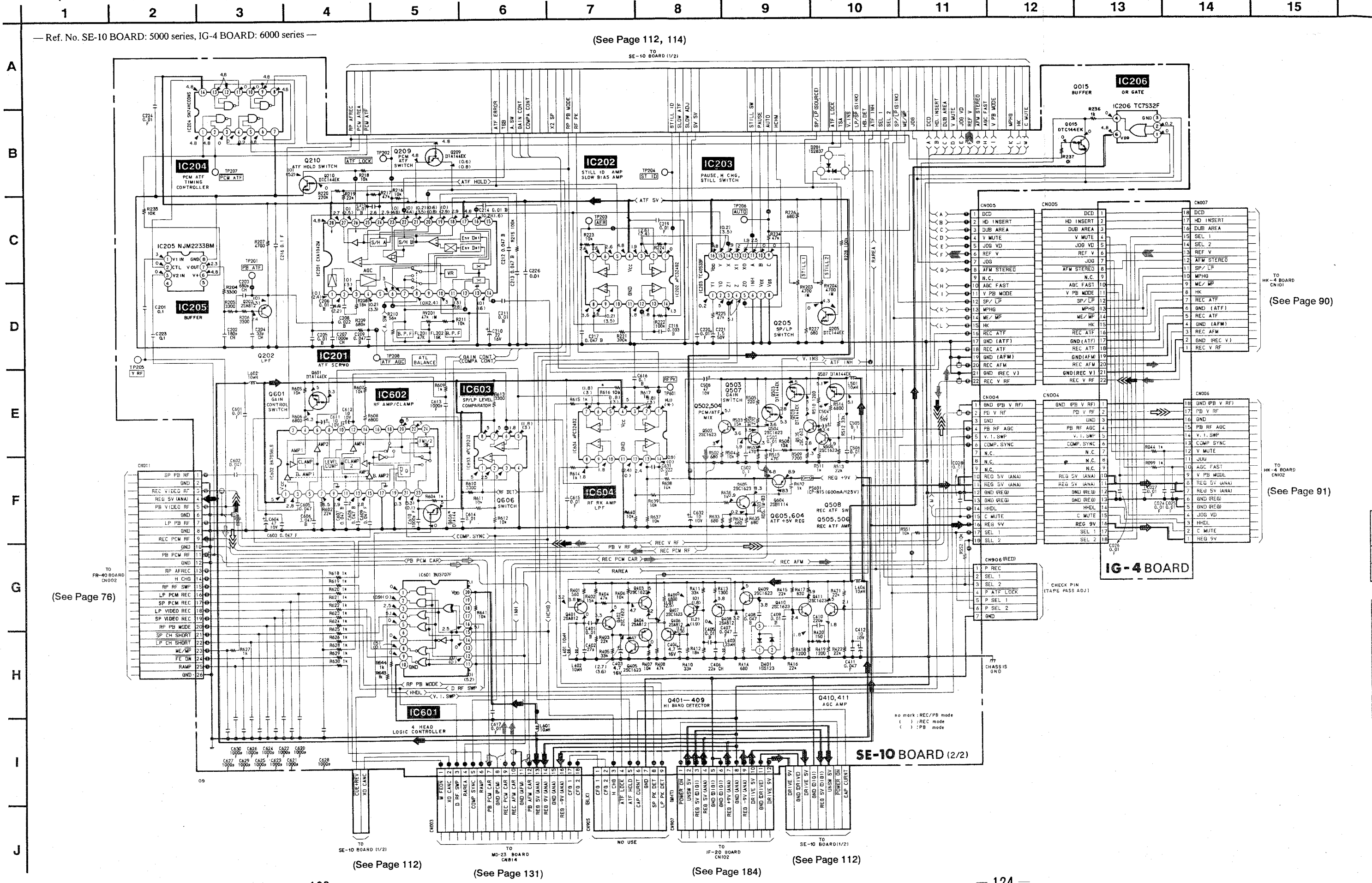

A
B
C
D
E
F
G
H
6
5
4
3
2
1
CN001
CN002
CN003
CN004
CN005
CN006
CN012
IC004
SE-10
1-630-906-16
MADE IN JAPAN
C5 SE-10
16

IG-4 BOARD (CONDUCTOR SIDE)


CN006
CN004
S -C5 IG-4
1-630-904-16
MADE IN JAPAN
CN007
CN005
1-630-904-
16

SE-10 (ATF SERVO, HEAD SELECT), IG-4 (LINK) SCHEMATIC DIAGRAMS

— Ref. No. SE-10 BOARD: 5000 series, IG-4 BOARD: 6000 series —


1
2
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4
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9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
(See Page 112, 114)
TO SE-10 BOARD (1/2)
IC204
PCM ATF TIMING CONTROLLER
IC204 SN74HC00NS
TP207 PCM ATF
Q210 ATF HOLD SWITCH
Q209 PCM ATF SWITCH
TP202 ATF LOCK
ATF HOLD
IC205 NJM2233BM
IC205 BUFFER
TP201 PB ATF
Q202 LPF
TP205 Y RF
IC201 CX20084
IC201 ATF SERVO
TP208 ATF AGC
ATL BALANCE
GAIN CONT
COMPA CONT
ATF 5V
IC202
STILL ID AMP SLOW BIAS AMP
TP203 AFR
TP204 ST ID
IC202 μPC3242
IC203
PAUSE, H CHG, STILL SWITCH
TP206 AUTO
IC203 TC4053BF
Q205 SP/LP SWITCH
Q015 BUFFER
IC206 OR GATE
IC206 TC7S32F
Q015 DTC144EK
D201 1SS237
V. INS
ATF INH
IC602 RF AMP/CLAMP
Q601 GAIN CONTROL SWITCH
IC603 SP/LP LEVEL COMPARATOR
IC604 RF RK AMP LPF
IC604 μPC3242
Q606 SWITCH
RF PK
Q503 Q507 GAIN SWITCH
Q502,504 PCM/ATF MIX
Q508 REC ATF SW
Q605,604 ATF +5V REG
Q505,506 REC ATF AMP
PS601 ICP-N15 (600mA/125V)
REG +9V
COMP. SYNC
REC V RF
PB V RF
REC PCM RF
PB PCM CAR
REC PCM CAR
RAREA
REC AFM
RF DET
CN011
SP PB RF
GND
REC VIDEO RF
REG 5V (ANA)
PB VIDEO RF
LP PB RF
REC PCM RF
PB PCM RF
RP AFREC
H CHG
RP RF SWP
LP PCM REC
SP PCM REC
LP VIDEO REC
SP VIDEO REC
RP PB MODE
SP CH SHORT
LP CH SHORT
ME/MP
FE ON
RAMP
TO FR-40 BOARD CN002
(See Page 76)
IC601 BU3707F
IC601
4 HEAD LOGIC CONTROLLER
RP PB MODE
D RF SWP
HHDL
V. 1. SWP
Q401-409 HI BAND DETECTOR
Q410, 411 AGC AMP
CHASSIS GND
no mark : REC/PB mode
( ) : REC mode
〈 〉 : PB mode
SE-10 BOARD (2/2)
CN005
DCD
HD INSERT
DUB AREA
V MUTE
JOG VD
REF V
JOG
AFM STEREO
N.C.
AGC FAST
V PB MODE
SP/LP
MPHG
ME/MP
HK
REC ATF
GND (ATF)
GND (AFM)
REC AFM
GND (REC V)
REC V RF
CN007
TO HK-4 BOARD CN101
(See Page 90)
CN004
GND (PB V RF)
PB V RF
PB RF AGC
V. 1. SWP
COMP. SYNC
REG 5V (ANA)
GND (REG)
HHDL
C MUTE
REG 9V
SEL 1
SEL 2
CN006
TO HK-4 BOARD CN102
(See Page 91)
IG-4 BOARD
CN906 (RED)
P REC
P ATF LOCK
P SEL 1
P SEL 2
CHECK PIN (TAPE PASS ADJ)
CN003
M FEON
XO CANC
D RF SWP
RAREA
COMP SYNC
RAMP
PB PCM CAR
REC PCM CAR
PB AFM CAR
REG 5V (ANA)
REG 9V (ANA)
GND (ANA)
REG -9V (ANA)
CFG 1
CFG 2
CUE/REV
XO CANC
TO SE-10 BOARD (1/2)
(See Page 112)
TO MD-23 BOARD CN814
(See Page 131)
CN905
CFG 1
CFG 2
H LOCK
ATF HOLD
CAP CURNT
SP PK DET
RP PK DET
NO USE
CN907
POWER ON
UNSW 5V
REG 5V (ANA)
GND (DIGI)
REG +9V (ANA)
REG -9V (ANA)
GND (DRIVE)
DRIVE 5V
DRIVE 9V
TO JF-20 BOARD CN102
(See Page 184)
TO SE-10 BOARD (1/2)
(See Page 112)

• SIGN

REC

PB

Drum s

Drum p

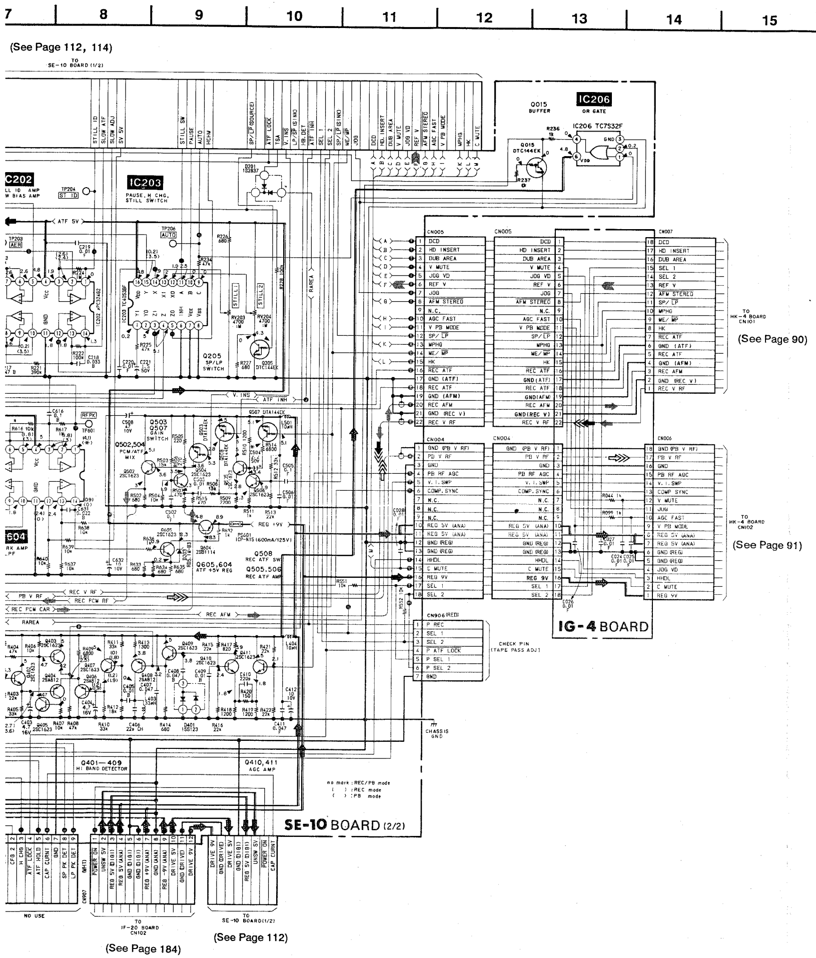
Drum s

Capsta

Capsta

Capsta

Ref. si

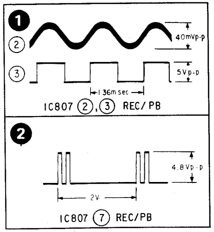

7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
(See Page 112, 114)
TO SE-10 BOARD (1/2)
IC202
IC203
PAUSE, H CHG, STILL SWITCH
IC206
OR GATE
Q015 BUFFER
IC206 TC7S32F
Q015 DTC144EK
Q205 SP/LP SWITCH
Q205 DTC144EK
Q502,504 PCM/ATF MIX
Q503 Q507 GAIN SWITCH
Q507 DTA144EK
Q508 REC ATF SW
Q605,604 ATF +5V REG
Q505,506 REC ATF AMP
PS601 ICP-N15 (600mA/125V)
604
CN005
CN004
CN006
CN007
CN906 (RED)
CHECK PIN (TAPE PASS ADJ)
TO HK-4 BOARD CN101
(See Page 90)
TO HK-4 BOARD CN102
(See Page 91)
IG-4 BOARD
Q401—409 HI BAND DETECTOR
Q410,411 AGC AMP
CHASSIS GND
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode
SE-10 BOARD (2/2)
CN907
NO USE
TO IF-20 BOARD CN102
(See Page 184)
TO SE-10 BOARD (1/2)
(See Page 112)

- **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC			➡	➡
PB			⇨	⇨

	REC	REC/PB	PB
Drum speed servo			
Drum phase servo			
Drum servo (speed and phase)			
Capstan speed servo			
Capstan phase servo			
Capstan servo (speed and phase)			
Ref. signal	➡		

MD-23 BOARD



* A-7061-819-A MD-23 BOARD, COMPLETE
****

〈 DIODE 〉

D803	8-719-200-27	DIODE E10DS2
D810	8-719-400-18	DIODE MA152WK
D811	8-719-200-27	DIODE E10DS2
D901	8-719-400-18	DIODE MA152WK
D902	8-719-400-18	DIODE MA152WK
D903	8-719-400-18	DIODE MA152WK
D904	8-719-800-76	DIODE 1SS226
D905	8-719-400-18	DIODE MA152WK

〈 IC 〉

IC801	8-752-037-08	IC CXA1109M
IC802	8-759-802-79	IC LB1616M
IC804	8-759-514-98	IC RC3414M
IC805	8-759-100-93	IC uPC393G2
IC806	8-759-207-00	IC TA7733F
IC807	8-759-107-68	IC CX20115A
IC808	8-759-700-62	IC NJM4562M
IC809	8-759-100-94	IC uPC358G2
IC901	8-759-207-50	IC TA7745F
IC902	8-759-150-05	IC uPC324G2
IC903	8-759-925-66	IC BA6303F
IC904	8-759-008-67	IC TC4066BF

〈 TRANSISTOR 〉

Q806	8-729-111-14	TRANSISTOR 2SA1385-Z
Q807	8-729-901-06	TRANSISTOR DTA144EK
Q809	8-729-111-95	TRANSISTOR 2SC3518
Q810	8-729-805-25	TRANSISTOR 2SB1121
Q811	8-729-805-25	TRANSISTOR 2SB1121
Q812	8-729-111-14	TRANSISTOR 2SA1385-Z
Q813	8-729-100-66	TRANSISTOR 2SC1623
Q820	8-729-111-95	TRANSISTOR 2SC3518
Q821	8-729-100-66	TRANSISTOR 2SC1623
Q880	8-729-100-66	TRANSISTOR 2SC1623
Q901	8-729-920-82	TRANSISTOR 2SB1188-QR
Q902	8-729-920-82	TRANSISTOR 2SB1188-QR
Q903	8-729-920-82	TRANSISTOR 2SB1188-QR
Q904	8-729-901-06	TRANSISTOR DTA144EK
Q905	8-729-901-06	TRANSISTOR DTA144EK
Q906	8-729-901-01	TRANSISTOR DTC144EK
Q907	8-729-901-01	TRANSISTOR DTC144EK
Q908	8-729-901-01	TRANSISTOR DTC144EK
Q909	8-729-901-06	TRANSISTOR DTA144EK
Q950	8-729-903-97	TRANSISTOR FMS1FE
Q990	8-729-100-66	TRANSISTOR 2SC1623

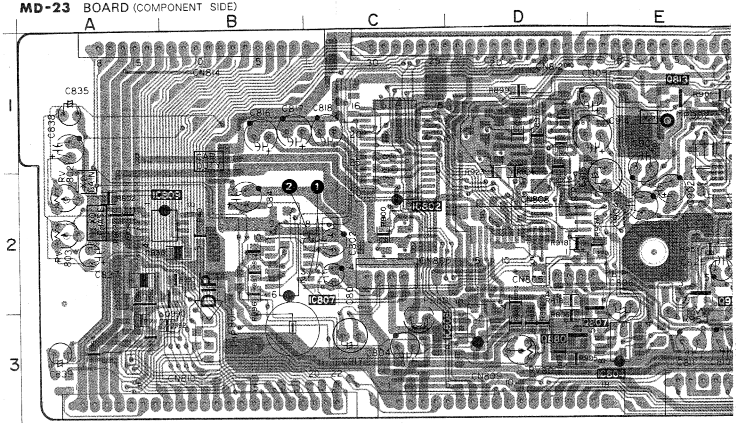
MD-23 (CAPSTAN/DRUM/REEL MOTOR DRIVE), TS-74 (R) (TAPE TOP SENSOR), TS-74 (L) (TAPE END SENSOR) PRINTED WIRING BOAI

— Ref. No. MD-23, TS-74(R) BOARD: 1000 series, TS-74(L) BOARD: 2000 series —

MD-23 BOARD
(COMPONENT
SIDE)

D810	F-3
D811	F-3
IC801	F-2
IC802	C-2
IC804	E-3
IC805	G-3
IC807	B-2
IC808	D-3
IC809	A-2
Q807	E-3
Q810	G-2
Q811	G-2
Q813	E-1
Q880	D-3
Q904	F-1
Q905	G-1
Q950	E-2
Q990	B-2

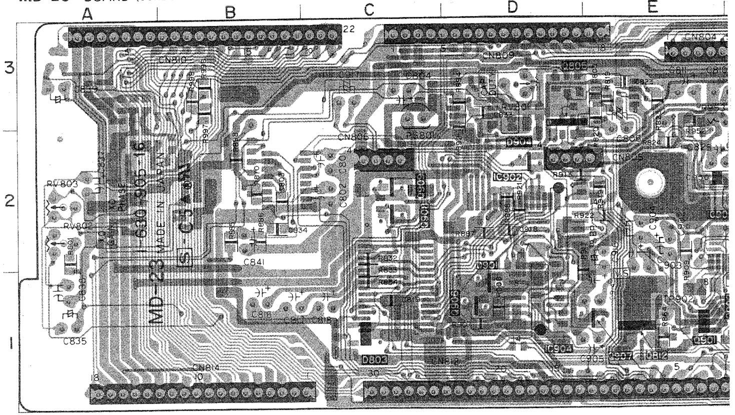
MD-23 BOARD (COMPONENT SIDE)


A
B
C
D
E
1
2
3
CN814
CN812
C835
C838
C839
C816
C817
C818
C905
IC809
IC802
IC807
IC804
CN806
CN805
CN808
CN809
CN810
Q813
Q807
Q880
Q990
DIP
RV802
RV803
❶
❷

MD-23 BOARD
(CONDUCTOR
SIDE)

D803	C-1
D901	D-1
D902	F-1
D903	F-1
D904	D-2
D905	G-1
IC806	G-2
IC901	F-2
IC902	D-2
IC903	F-1
IC904	D-1
Q806	D-3
Q809	F-3
Q812	E-1
Q820	G-2
Q821	F-2
Q901	E-1
Q902	F-1
Q903	F-1
Q906	D-1
Q907	E-1
Q908	C-2
Q909	C-2

MD-23 BOARD (CONDUCTOR SIDE)


A
B
C
D
E
3
2
1
CN810
CN809
CN804
CN806
CN814
CN812
RV803
RV802
C835
C841
IC902
IC904
D904
D803
Q901
Q907
Q812
MD-23
1-630-905-16
MADE IN JAPAN

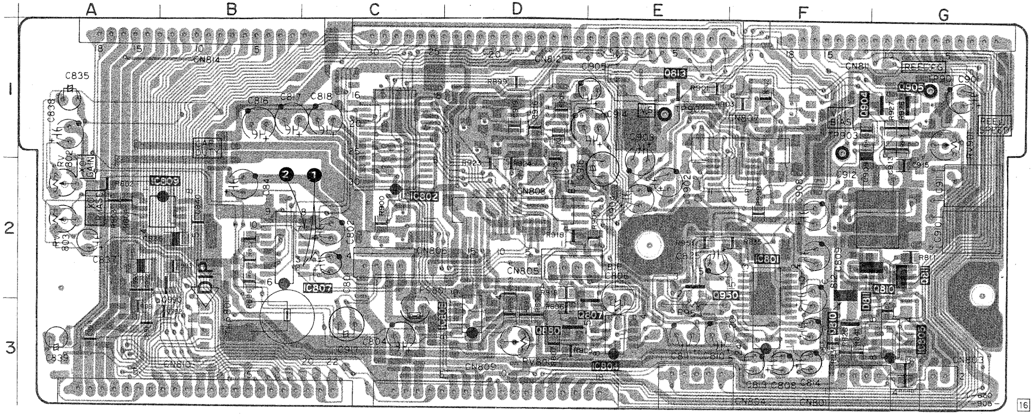
MD-23 (CAPSTAN/DRUM/REEL MOTOR DRIVE), TS-74 (R) (TAPE TOP SENSOR), TS-74 (L) (TAPE END SENSOR) PRINTED WIRING BOARDS

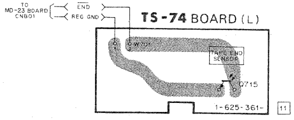
— Ref. No. MD-23, TS-74(R) BOARD: 1000 series, TS-74(L) BOARD: 2000 series —

MD-23 BOARD (COMPONENT SIDE)

D810	F-3
D811	F-3
IC801	F-2
IC802	C-2
IC804	E-3
IC805	G-3
IC807	B-2
IC808	D-3
IC809	A-2
Q807	E-3
Q810	G-2
Q811	G-2
Q813	E-1
Q880	D-3
Q904	F-1
Q905	G-1
Q950	E-2
Q990	B-2

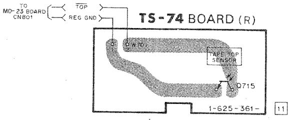
MD-23 BOARD (COMPONENT SIDE)


A
B
C
D
E
F
G
1
2
3
CN814
CN812
CN811
CN810
CN809
CN808
CN806
CN805
CN804
CN803
CN801
IC809
IC807
IC802
IC801
IC808
IC804
IC805
Q813
Q905
Q904
Q950
Q880
Q807
Q810
Q811
D810
D811
C835
C839
C816
C817
C818
C905
C909
C901
C912
C910
CAP DUTY
DIP
BIAS
REEL FG
VS
TP901
TP902
TP903
RV802
RV803
1-630-905-
16



TS-74 BOARD (L)

TO
MD-23 BOARD
CN801
END
REG GND
W701
TAPE END
SENSOR
Q715
1-625-361-
11



TS-74 BOARD (R)

TO
MD-23 BOARD
CN801
TOP
REG GND
W701
TAPE TOP
SENSOR
Q715
1-625-361-
11

* A-7070-628-A TS-74 (L) BOARD, COMPLETE
****

(TRANSISTOR)

Q715 8-729-700-08 TRANSISTOR NJL714E

* A-7070-627-A TS-74 (R) BOARD, COMPLETE
****

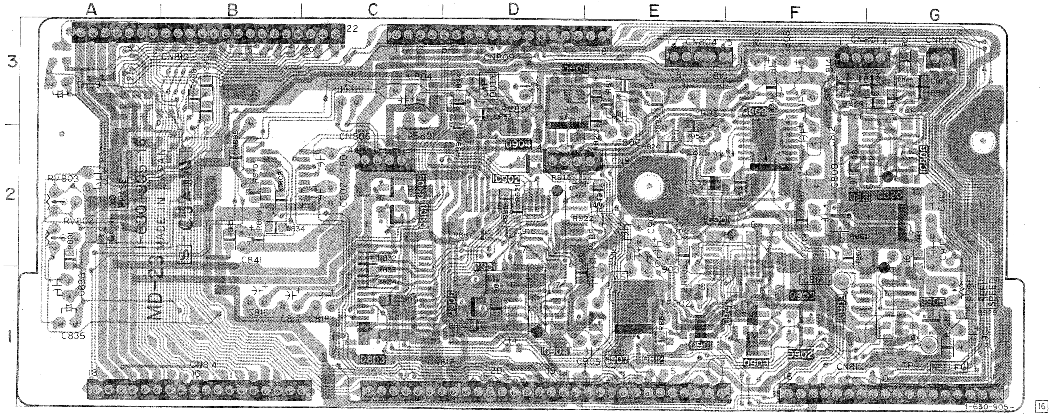
(TRANSISTOR)

Q715 8-729-700-08 TRANSISTOR NJL714E

MD-23 BOARD (CONDUCTOR SIDE)

D803	C-1
D901	D-1
D902	F-1
D903	F-1
D904	D-2
D905	G-1
IC806	G-2
IC901	F-2
IC902	D-2
IC903	F-1
IC904	D-1
Q806	D-3
Q809	F-3
Q812	E-1
Q820	G-2
Q821	F-2
Q901	E-1
Q902	F-1
Q903	F-1
Q906	D-1
Q907	E-1
Q908	C-2
Q909	C-2

MD-23 BOARD (CONDUCTOR SIDE)


A
B
C
D
E
F
G
3
2
1
CN810
CN809
CN804
CN806
CN805
CN814
CN812
CN811
RV803
RV802
MD-23
1-630-905-16
MADE IN JAPAN
IC902
IC901
IC806
D901
D904
D803
D903
D902
D905
Q805
Q809
Q821
Q820
Q903
Q901
Q902
Q907
Q812
VS
V.BIAS
TP901
TP902
TP903
REEL FG
REEL SPEED
C835
C841
C816
C817
C818
1-630-905-
16

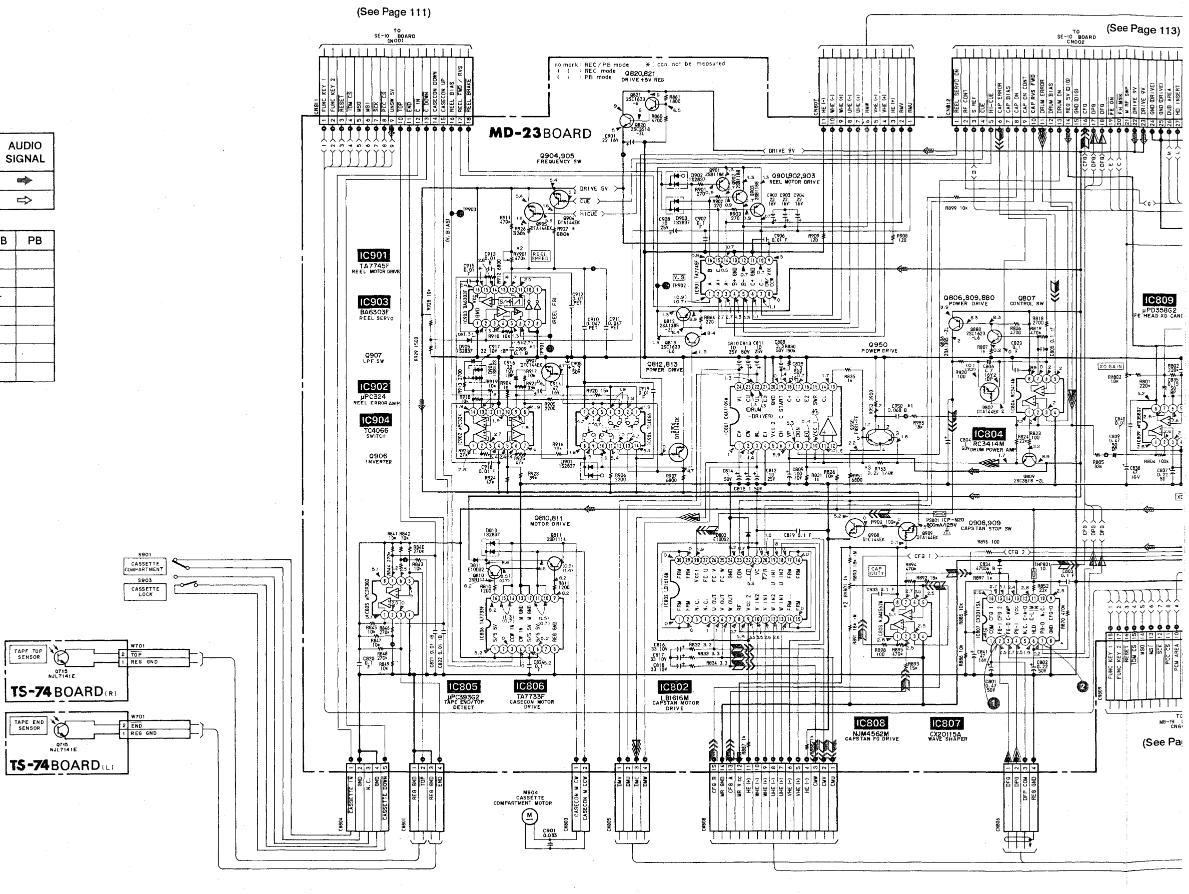
MD-23 (CAPSTAN/DRUM/REEL MOTOR DRIVE), TS-74 (R) (TAPE TOP SENSOR), TS-74 (L) (TAPE END SENSOR) SCHEMATIC DIAGRAMS

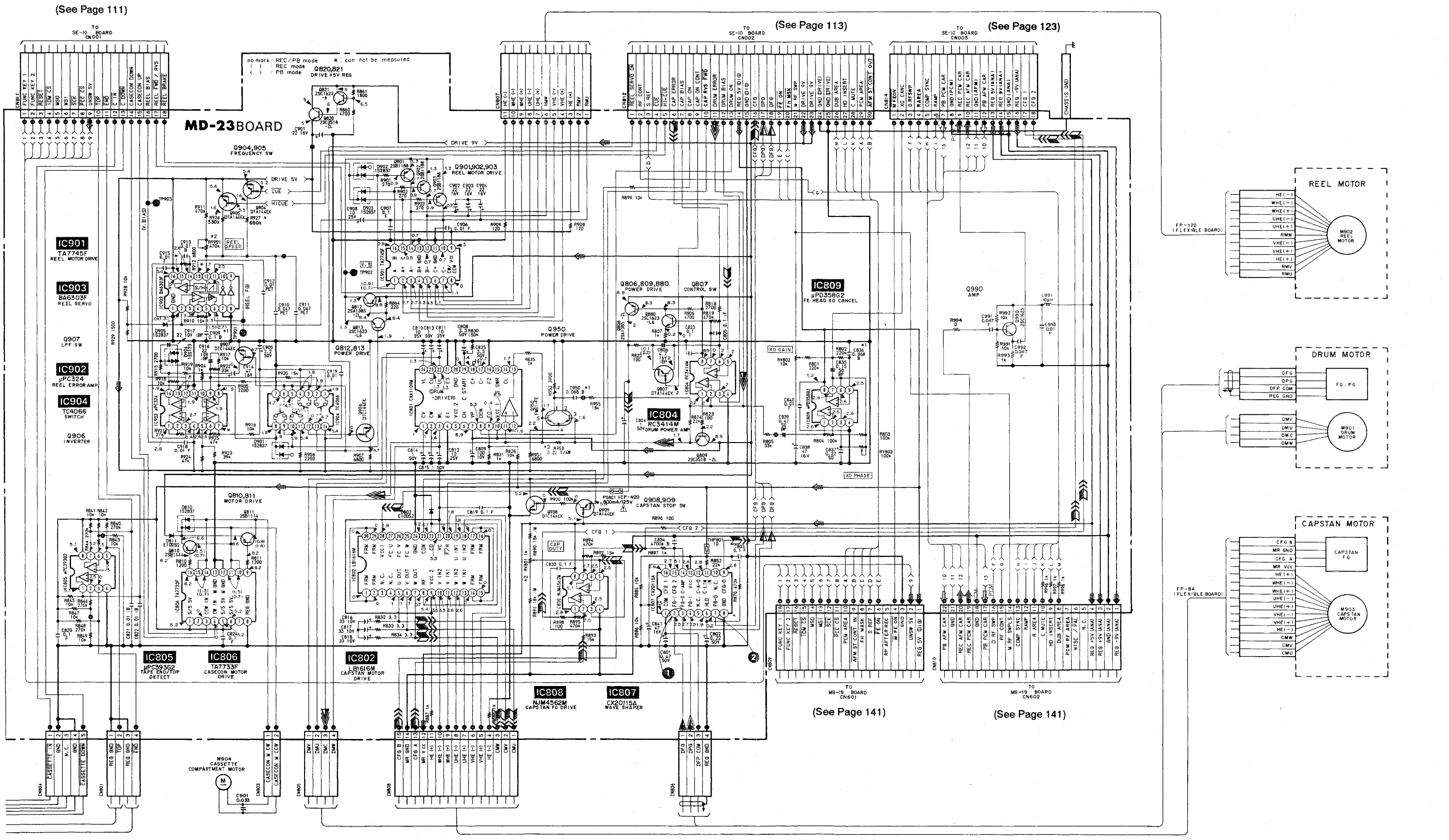
— Ref. No. MD-23, TS-74(R) BOARD: 1000 series, TS-74(L) BOARD: 2000 series —

- **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC				➡
PB				⇨

	REC	REC/PB	PB
Drum speed servo		▷	
Drum phase servo		▷▷	
Drum servo (speed and phase)		▷▷▷	
Capstan speed servo			
Capstan phase servo			
Capstan servo (speed and phase)			
Ref. signal		⇒»	


(See Page 111)
TO SE-10 BOARD CN001
(See Page 113)
TO SE-10 BOARD CN002
MD-23 BOARD
no mark : REC/PB mode
( ) : REC mode
< > : PB mode
✱ : can not be measured
Q820,821 DRIVE +5V REG
Q904,905 FREQUENCY SW
Q901,902,903 REEL MOTOR DRIVE
IC901 TA7745F REEL MOTOR DRIVE
IC903 BA6303F REEL SERVO
Q907 LPF SW
IC902 µPC324 REEL ERROR AMP
IC904 TC4066 SWITCH
Q906 INVERTER
Q812,813 POWER DRIVE
Q950 POWER DRIVE
Q806,809,880 POWER DRIVE
Q807 CONTROL SW
IC809 µPD358G2 FE HEAD XD CANC
IC804 RC3414M DRUM POWER AMP
IC801 CXA1109M DRUM DRIVER
Q908,909 CAPSTAN STOP SW
Q810,811 MOTOR DRIVE
S901 CASSETTE COMPARTMENT
S903 CASSETTE LOCK
TAPE TOP SENSOR
Q715 NJL7141E
TS-74 BOARD (R)
TAPE END SENSOR
Q715 NJL7141E
TS-74 BOARD (L)
W701
TOP
END
REG GND
IC805 µPC393G2 TAPE END/TOP DETECT
IC806 TA7733F CASECON MOTOR DRIVE
IC802 LB1616M CAPSTAN MOTOR DRIVE
IC808 NJM4562M CAPSTAN FG DRIVE
IC807 CX20115A WAVE SHAPER
M904 CASSETTE COMPARTMENT MOTOR
CN804
CN801
CN803
CN805
CN808
CN806
CN811
CN807
CN812
MB-19
(See Pa


(See Page 111)
TO SE-10 BOARD CN001
(See Page 113)
TO SE-10 BOARD CN002
(See Page 123)
TO SE-10 BOARD CN003
MD-23BOARD
no mark : REC/PB mode
( ) : REC mode
< > : PB mode
✻ : can not be measured
Q820,821 DRIVE +5V REG
Q904,905 FREQUENCY SW
Q901,902,903 REEL MOTOR DRIVE
IC901 TA7745F REEL MOTOR DRIVE
IC903 BA6303F REEL SERVO
Q907 LPF SW
IC902 μPC324 REEL ERROR AMP
IC904 TC4066 SWITCH
Q906 INVERTER
Q812,813 POWER DRIVE
Q950 POWER DRIVE
IC801 CXA1101M DRUM DRIVER
Q806,809,880 POWER DRIVE
Q807 CONTROL SW
IC804 RC3414M DRUM POWER AMP
IC809 μPD358G2 FE HEAD XD CANCEL
XD GAIN
XD PHASE
Q990 AMP
REEL MOTOR
M902 REEL MOTOR
FP-122 (FLEXIBLE BOARD)
DRUM MOTOR
M901 DRUM MOTOR
FG.PG
CAPSTAN MOTOR
M903 CAPSTAN MOTOR
CAPSTAN FG
FP-84 (FLEXIBLE BOARD)
Q810,811 MOTOR DRIVE
Q908,909 CAPSTAN STOP SW
PS801 ICP-N20 800mA/125V
CAP DUTY
IC805 μPC393G2 TAPE END/TOP DETECT
IC806 TA7733F CASECON MOTOR DRIVE
IC802 LB1616M CAPSTAN MOTOR DRIVE
IC808 NJM4562M CAPSTAN FG DRIVE
IC807 CX20115A WAVE SHAPER
TO MB-19 BOARD CN601
(See Page 141)
TO MB-19 BOARD CN602
(See Page 141)
M904 CASSETTE COMPARTMENT MOTOR
CN804
CN901
CN803
CN805
CN808
CN806
CN801
CN807
CN812
CN814
CN809
CN810

RS-31 (REEL SENSOR), LD-1 (TAPE SENSOR), MS-4 (CONTROL MOTOR, MODE SWITCH), LS-9 (LOADING SWITCH) PRINTED WIRING BOARDS

— Ref. No. RS-31, LD-1 BOARD: 6000 series —

MS-4, LS-9 boards is replaced as a block, so that the PRINTED WIRING BOARD of it is omitted.

* A-7061-818-A RS-31 BOARD, COMPLETE
****

(DIODE)

D320	8-719-800-76	DIODE 1SS226
D321	8-719-800-76	DIODE 1SS226

(IC)

IC301	8-759-908-81	IC MB3763PF
IC302	8-759-908-81	IC MB3763PF

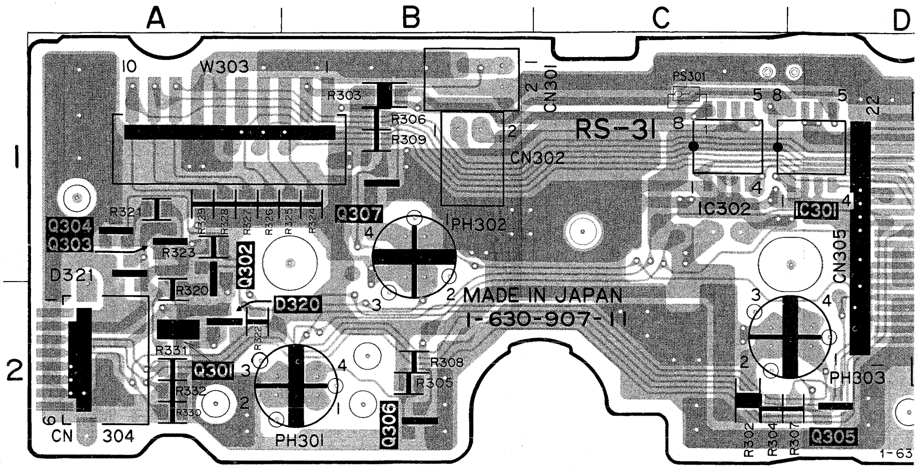
(TRANSISTOR)

Q301	8-729-805-25	TRANSISTOR 2SB1121
Q302	8-729-216-22	TRANSISTOR 2SA1162
Q303	8-729-216-22	TRANSISTOR 2SA1162
Q304	8-729-216-22	TRANSISTOR 2SA1162
Q305	8-729-901-01	TRANSISTOR DTC144EK
Q306	8-729-901-01	TRANSISTOR DTC144EK
Q307	8-729-901-01	TRANSISTOR DTC144EK

RS-31 BOARD (COMPONENT SIDE)

D320	B-2
D321	A-1
IC301	D-1
IC302	C-1
Q301	A-2
Q302	A-1
Q303	A-1
Q304	A-1
Q305	D-2
Q306	B-2
Q307	B-1

RS-31 BOARD (COMPONENT SIDE)

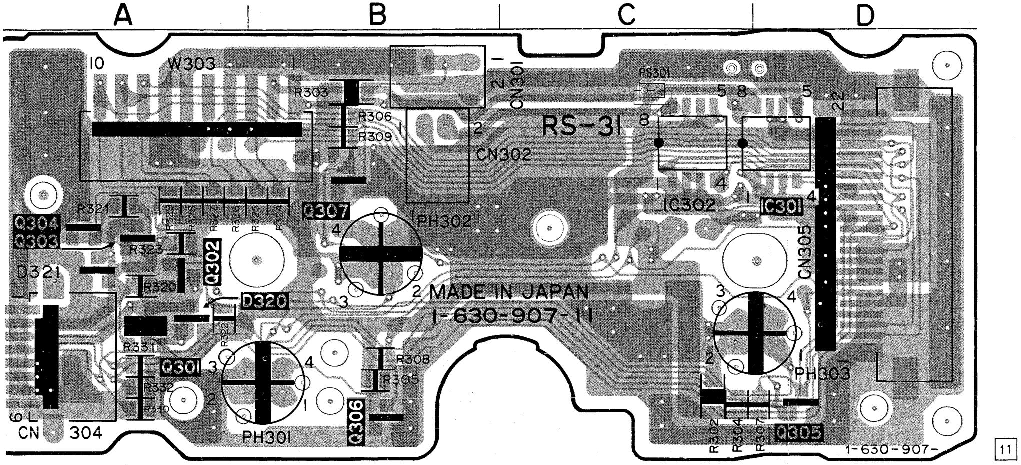

A
B
C
D
1
2
W303
10
1
R303
R306
R309
CN301
2
1
CN302
RS-31
PS301
5
8
8
5
22
4
1
IC302
IC301
4
CN305
R321
R329
R328
R327
R326
R325
R324
Q307
PH302
Q304
Q303
R323
Q302
D321
R320
D320
MADE IN JAPAN
1-630-907-11
3
2
4
R331
R322
Q301
R308
R305
R332
R330
PH301
Q306
PH303
R302
R304
R307
Q305
CN
304
1-63

R), LD-1 (TAPE SENSOR), MS-4 (CONTROL MOTOR, MODE SWITCH), LS-9 (LOADING SWITCH) PRINTED WIRING BOARDS

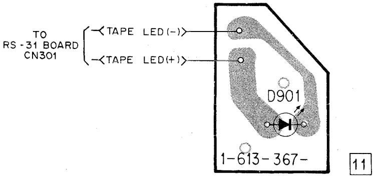
ARD: 6000 series —

ced as a block, so that the PRINTED WIRING BOARD of it is omitted.

RS-31 BOARD (COMPONENT SIDE)


A
B
C
D
RS-31
MADE IN JAPAN
1-630-907-11
1-630-907-
W303
10
1
R303
R306
R309
R321
R329
R328
R327
R326
R325
R324
R323
R320
R322
R331
R332
R330
R308
R305
R302
R304
R307
Q304
Q303
Q302
Q307
Q301
Q306
Q305
D321
D320
PH301
PH302
PH303
CN301
CN302
CN304
CN305
PS301
IC302
IC301
22
11

LD-1
BOARD(CONDUCTOR SIDE)


TO
RS-31 BOARD
CN301
TAPE LED(-)
TAPE LED(+)
D901
1-613-367-
11

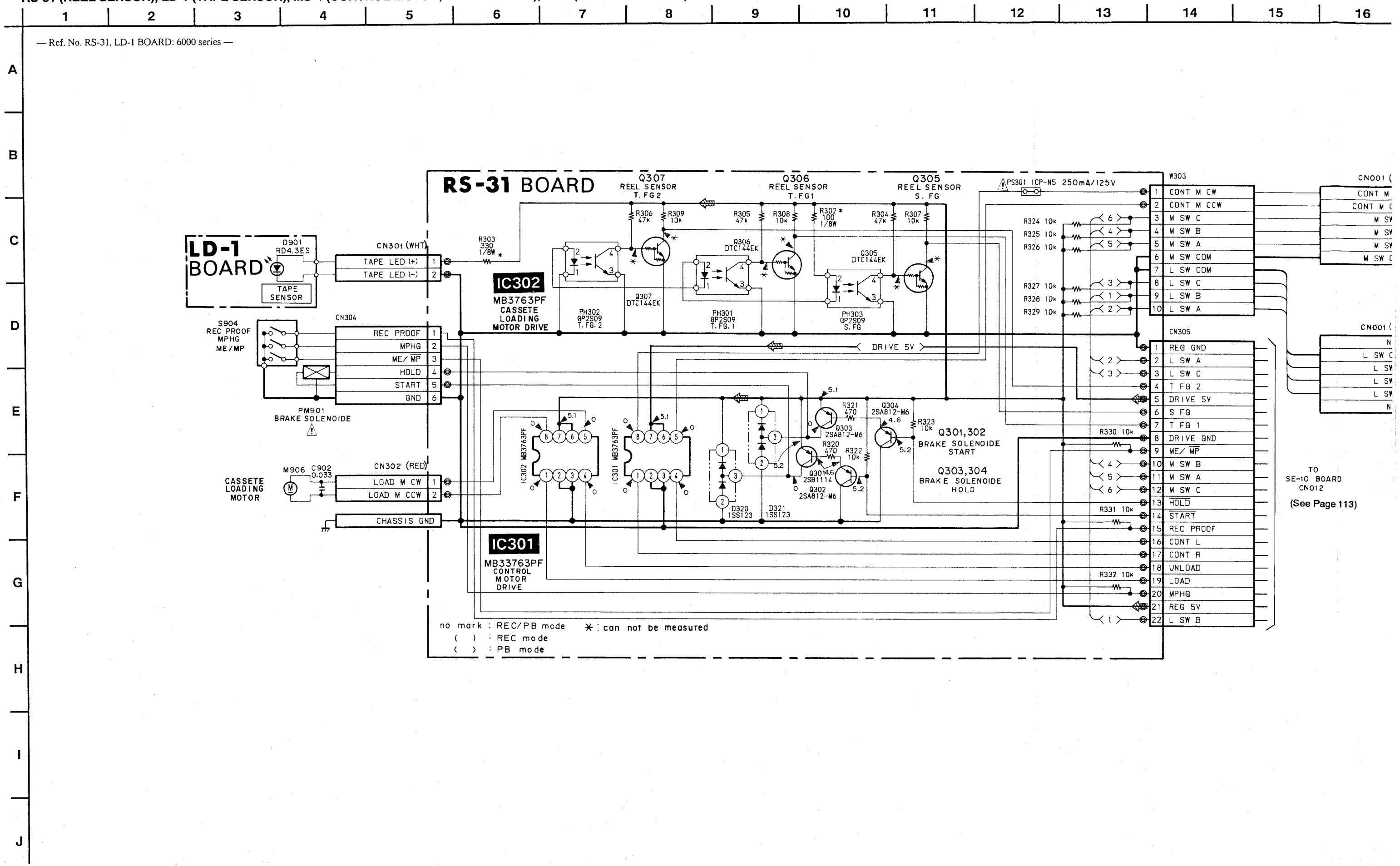
* A-7070-024-A LD-1 BOARD, COMPLETE
****

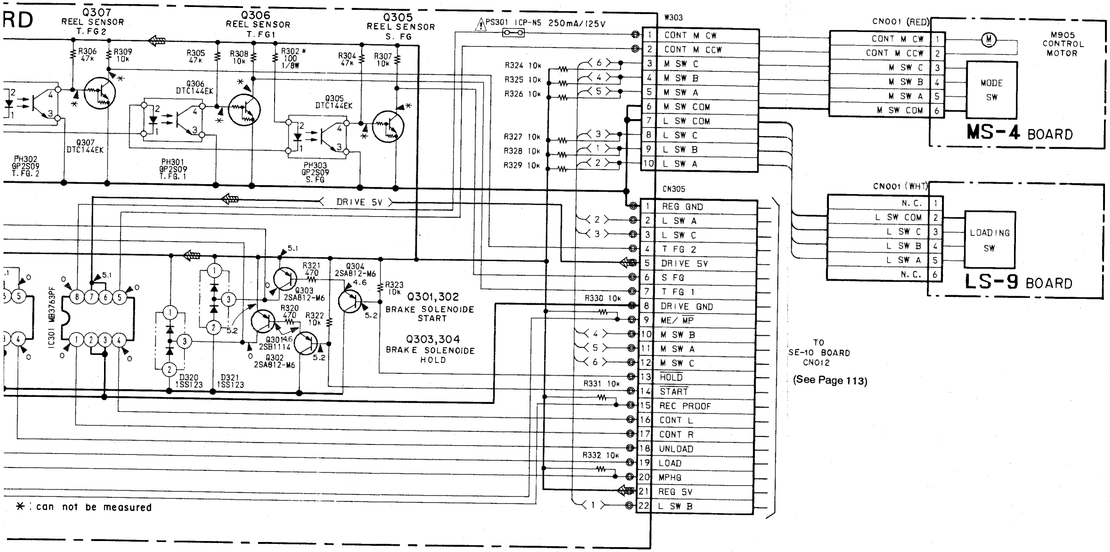
(DIODE)

D901	8-719-928-54	DIODE GL-450S

RS-31 (REEL SENSOR), LD-1 (TAPE SENSOR), MS-4 (CONTROL MOTOR, MODE SWITCH), LS-9 (LOADING SWITCH) SCHEMATIC DIAGRAMS

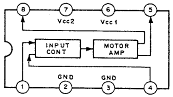
— Ref. No. RS-31, LD-1 BOARD: 6000 series —


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
RS-31 BOARD
LD-1 BOARD
D901 RD4.3ES
TAPE SENSOR
CN301 (WHT)
TAPE LED (+) 1
TAPE LED (-) 2
R303 330 1/8W
S904 REC PROOF MPHG ME/MP
CN304
REC PROOF 1
MPHG 2
ME/MP 3
HOLD 4
START 5
GND 6
PM901 BRAKE SOLENOIDE
CASSETE LOADING MOTOR
M906
C902 0.033
CN302 (RED)
LOAD M CW 1
LOAD M CCW 2
CHASSIS GND
IC302
MB3763PF
CASSETE LOADING MOTOR DRIVE
IC301
MB33763PF
CONTROL MOTOR DRIVE
Q307 REEL SENSOR T.FG2
Q306 REEL SENSOR T.FG1
Q305 REEL SENSOR S.FG
R306 47k
R309 10k
R305 47k
R308 10k
R302 100 1/8W
R304 47k
R307 10k
Q307 DTC144EK
Q306 DTC144EK
Q305 DTC144EK
PH302 GP2S09 T.FG.2
PH301 GP2S09 T.FG.1
PH303 GP2S09 S.FG
DRIVE 5V
5.1
4.6
5.2
R321 470
R320 470
R322 10k
R323 10k
Q304 2SA812-M6
Q303 2SA812-M6
Q301 2SB1114
Q302 2SA812-M6
D320 1SS123
D321 1SS123
Q301,302 BRAKE SOLENOIDE START
Q303,304 BRAKE SOLENOIDE HOLD
PS301 ICP-N5 250mA/125V
R324 10k
R325 10k
R326 10k
R327 10k
R328 10k
R329 10k
R330 10k
R331 10k
R332 10k
W303
1 CONT M CW
2 CONT M CCW
3 M SW C
4 M SW B
5 M SW A
6 M SW COM
7 L SW COM
8 L SW C
9 L SW B
10 L SW A
CN305
1 REG GND
2 L SW A
3 L SW C
4 T FG 2
5 DRIVE 5V
6 S FG
7 T FG 1
8 DRIVE GND
9 ME/MP
10 M SW B
11 M SW A
12 M SW C
13 HOLD
14 START
15 REC PROOF
16 CONT L
17 CONT R
18 UNLOAD
19 LOAD
20 MPHG
21 REG 5V
22 L SW B
CN001 (
CONT M
CONT M (
M SW
M SW
M SW
M SW (
N
L SW C
L SW
L SW
L SW
N
TO SE-10 BOARD CN012
(See Page 113)
no mark : REC/PB mode
( ) : REC mode
〈 〉 : PB mode
✱ : can not be measured


RD
Q307 REEL SENSOR T.FG2
Q306 REEL SENSOR T.FG1
Q305 REEL SENSOR S. FG
R306 47k
R309 10k
R305 47k
R308 10k
R302 ✱ 100 1/8W
R304 47k
R307 10k
Q306 DTC144EK
Q305 DTC144EK
Q307 DTC144EK
PH302 GP2S09 T.FG.2
PH301 GP2S09 T.FG.1
PH303 GP2S09 S.FG
PS301 ICP-N5 250mA/125V
DRIVE 5V
R324 10k
R325 10k
R326 10k
R327 10k
R328 10k
R329 10k
W303
1 CONT M CW
2 CONT M CCW
3 M SW C
4 M SW B
5 M SW A
6 M SW COM
7 L SW COM
8 L SW C
9 L SW B
10 L SW A
CN001 (RED)
1 CONT M CW
2 CONT M CCW
3 M SW C
4 M SW B
5 M SW A
6 M SW COM
M905 CONTROL MOTOR
MODE SW
MS-4 BOARD
CN305
1 REG GND
2 L SW A
3 L SW C
4 T FG 2
5 DRIVE 5V
6 S FG
7 T FG 1
8 DRIVE GND
9 ME/MP
10 M SW B
11 M SW A
12 M SW C
13 HOLD
14 START
15 REC PROOF
16 CONT L
17 CONT R
18 UNLOAD
19 LOAD
20 MPHG
21 REG 5V
22 L SW B
CN001 (WHT)
1 N.C.
2 L SW COM
3 L SW C
4 L SW B
5 L SW A
6 N.C.
LOADING SW
LS-9 BOARD
TO SE-10 BOARD CN012
(See Page 113)
IC301 MB3763PF
R321 470
R320 470
R322 10k
R323 10k
R330 10k
R331 10k
R332 10k
Q303 2SA812-M6
Q304 2SA812-M6
Q301 2SB1114
Q302 2SA812-M6
Q301,302 BRAKE SOLENOIDE START
Q303,304 BRAKE SOLENOIDE HOLD
D320 1SS123
D321 1SS123
5.1
4.6
5.2

✱: can not be measured

IC301, IC302 (MB3763PF)


Vcc2
Vcc1
INPUT CONT
MOTOR AMP
GND
GND
1
2
3
4
5
6
7
8

MB-19 (VTR FUNCTION SWITCH, AUDIO PROCESS) PRINTED WIRING BOARD

— Ref. No. MB-19 BOARD: 7000 series —

* A-7062-565-A MB-19 BOARD, COMPLETE
****

(DIODE)

D601	8-719-104-34	DIODE 1S2836
D602	8-719-104-34	DIODE 1S2836
D603	8-719-104-34	DIODE 1S2836
D604	8-719-400-18	DIODE MA152WK
D641	8-719-800-76	DIODE 1SS226
D642	8-719-800-76	DIODE 1SS226

(IC)

IC601	8-759-149-34	IC uPD75106G-591-1B
IC603	8-759-300-71	IC TC4053BFHB
IC651	8-759-603-27	IC M5201FP
IC661	8-759-603-27	IC M5201FP
IC671	8-741-150-50	IC SBX1505

(TRANSISTOR)

Q601	8-729-901-06	TRANSISTOR DTA144EK
Q602	8-729-901-01	TRANSISTOR DTC144EK
Q603	8-729-901-01	TRANSISTOR DTC144EK
Q604	8-729-901-01	TRANSISTOR DTC144EK
Q605	8-729-901-06	TRANSISTOR DTA144EK
Q606	8-729-901-06	TRANSISTOR DTA144EK
Q607	8-729-901-01	TRANSISTOR DTC144EK
Q608	8-729-901-01	TRANSISTOR DTC144EK
Q609	8-729-901-06	TRANSISTOR DTA144EK
Q671	8-729-100-66	TRANSISTOR 2SC1623

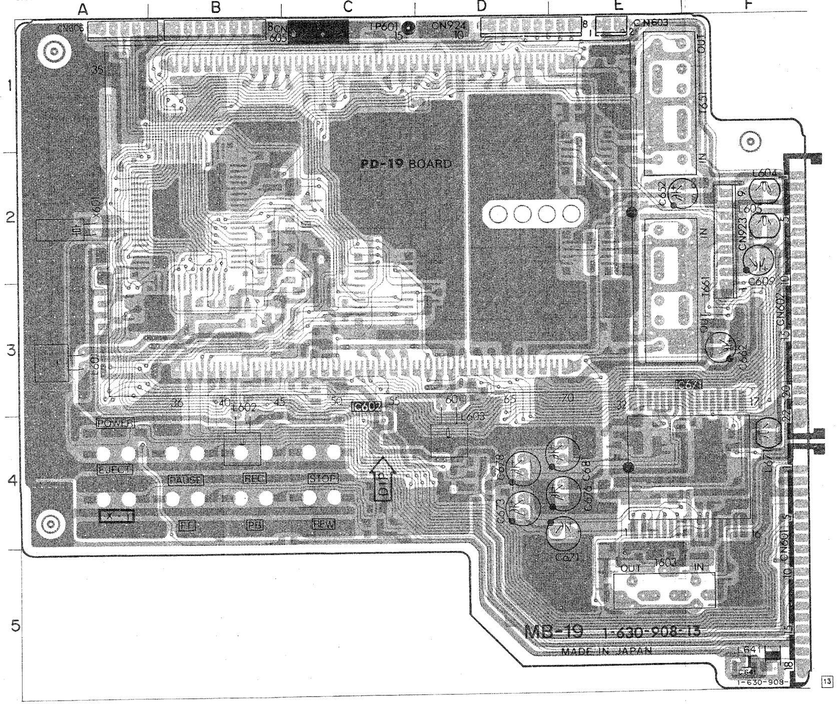
MB-19 BOARD (COMPONENT SIDE)

IC602	C-3
IC671	F-4

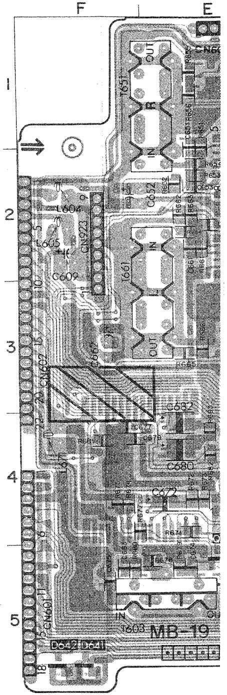
MB-19 BOARD (CONDUCTOR SIDE)

D601	C-4
D602	C-2
D603	C-2
D604	C-1
D641	F-5
D642	F-5
IC601	B-2
IC603	C-2
IC651	E-2
IC661	E-2
Q601	B-3
Q602	A-3
Q603	A-3
Q604	C-2
Q605	C-2
Q606	C-3
Q607	B-3
Q608	D-4
Q609	D-4
Q671	E-5

MB-19 BOARD (COMPONENT SIDE)

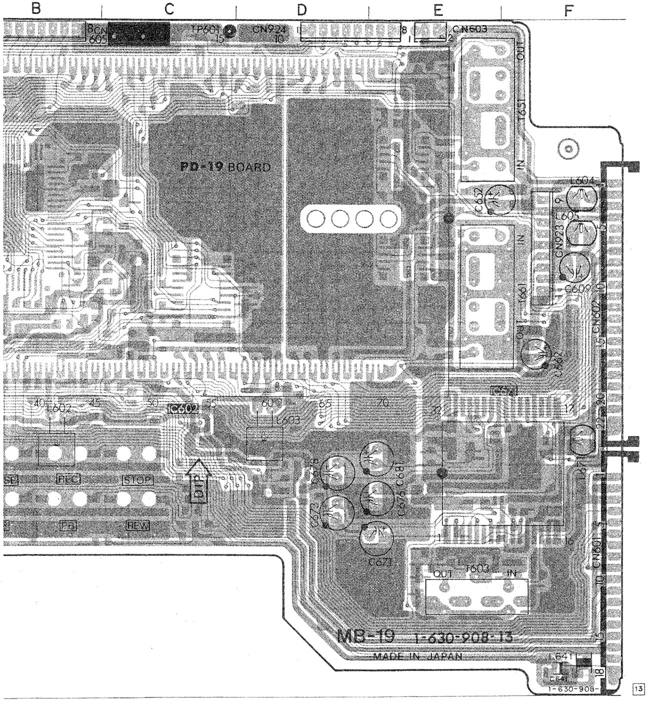

A
B
C
D
E
F
1
2
3
4
5
CN605
TP601
CN924
CN603
PD-19 BOARD
OUT
IN
T651
T661
C652
L604
L605
CN923
C609
CN602
IC671
IC602
L602
L603
POWER
EJECT
PAUSE
REC
STOP
FF
PB
REW
DIP
C678
C673
C676
C681
C671
T603
CN601
L641
C641
MB-19 1-630-908-13
MADE IN JAPAN
1-630-908-
13

MB-19 BOARD (CONDUCTOR SIDE)

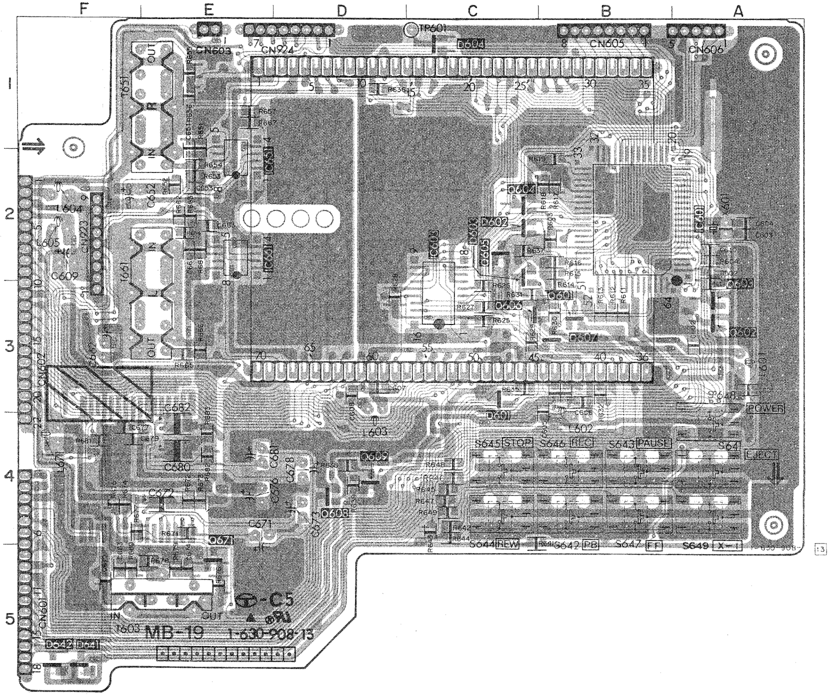

F
E
1
2
3
4
5
CN6
OUT
IN
T651
T661
C652
L604
L605
CN922
C609
CN602
C662
C682
C680
C672
R665
R674
T603
CN601
D642
D641
MB-19

:SS) PRINTED WIRING BOARD

SIDE)

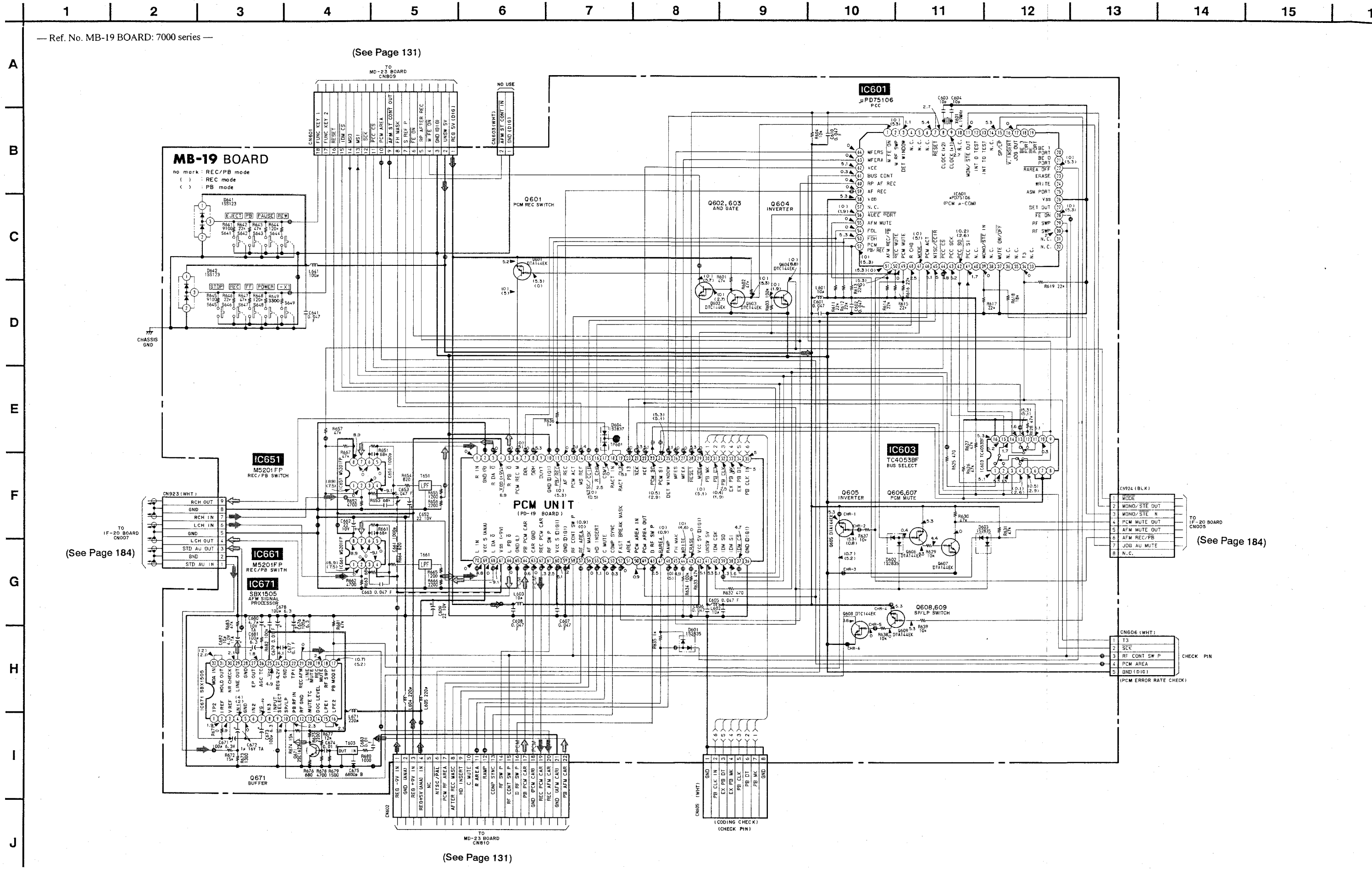

B
C
D
E
F
CN605
TP601
CN924
CN603
PD-19 BOARD
T651
IN
OUT
C652
L604
L605
CN923
C609
T661
C682
CN602
IC602
L602
L603
REC
STOP
PB
REW
C673
C675
C681
C671
T603
CN601
MB-19 1-630-908-13
MADE IN JAPAN
L641
C641
1-630-908
13

MB-19 BOARD (CONDUCTOR SIDE)


F
E
D
C
B
A
1
2
3
4
5
CN603
CN924
TP601
D604
CN605
CN606
T651
IC651
C652
L604
CN923
C605
C609
T661
IC661
IC603
Q604
D602
D603
D605
IC601
Q601
Q606
Q607
Q602
Q603
CN602
C682
C680
C681
C678
C676
C672
C671
C673
Q609
Q608
Q671
L603
L602
D601
S645 STOP
S646 REC
S643 PAUSE
S64
EJECT
POWER
S644 REW
S642 PB
S647 FF
S649 X-1
T603
IN
OUT
MB-19 1-630-908-13
C5
CN601
D642
D641
13

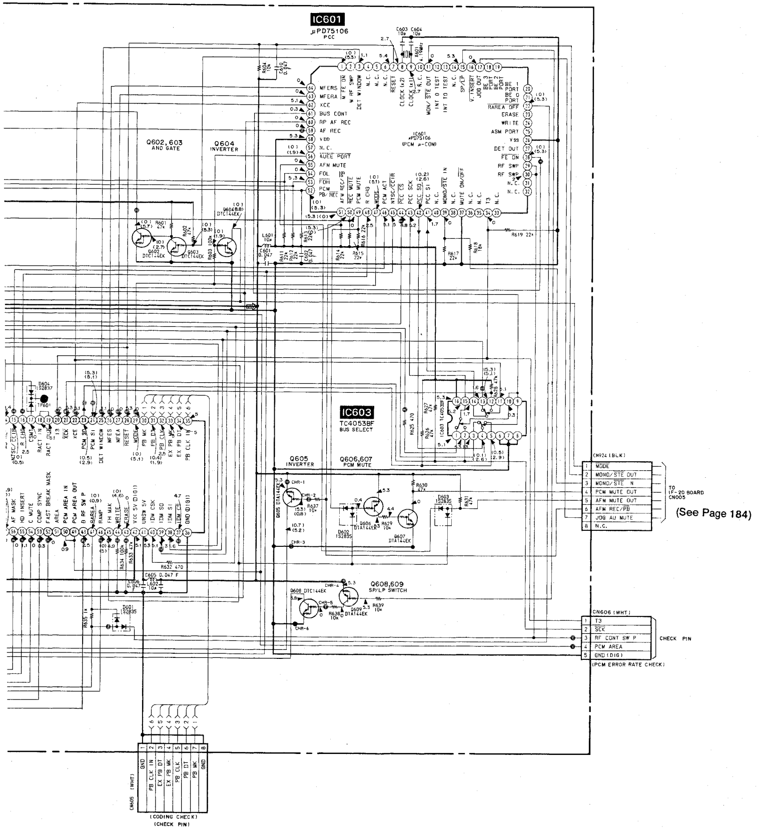
MB-19 (VTR FUNCTION SWITCH, AUDIO PROCESS) SCHEMATIC DIAGRAM

— Ref. No. MB-19 BOARD: 7000 series —

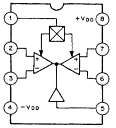

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
(See Page 131)
TO MD-23 BOARD CN809
NO USE
CN601
FUNC KEY 1
FUNC KEY 2
RESET
IDM CS
MSO
MSI
SCK
PCC CS
PCM AREA
AFM ST CONT OUT
FH MASK
S REF P
FE ON
RP AFTER REC
W FE ON
GND (DIG)
UNSW 5V
REG 5V (DIG)
CN603 (WHT)
AFM ST CONT IN
GND (DIG)
MB-19 BOARD
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode
D641 1SS123
EJECT
PB
PAUSE
REW
D642 1SS123
STOP
REC
FF
POWER
×1
L641 100μ
C641 0.047 F
CHASSIS GND
Q601 PCM REC SWITCH
Q601 DTA144EK
IC601
μPD75106
PCC
IC601 μPD75106 (PCM μ-COM)
MFERS
MFERA
XCE
BUS CONT
RP AF REC
AF REC
VDD
N.C.
AUEE PORT
AFM MUTE
FDL
FDH
PCM PB/REC
DET WINDOW
CLOCK (X2)
CLOCK (X1)
MONO/STE OUT
INT 0 TEST
INT 10 TEST
SP/LP
V. INSERT
JOG OUT
RAREA OFF
ERASE
WRITE
ASM PORT
VSS
DET OUT
FE ON
PF SWP
RF SWP
Q602, 603 AND GATE
Q604 INVERTER
Q602 DTC144EK
Q603 DTC144EK
Q604 DTC144EK
R619 22k
IC651
M5201FP
REC/PB SWITCH
IC661
M5201FP
REC/PB SWITH
IC671
SBX1505
AFM SIGNAL PROCESSOR
LPF
T651
T661
PCM UNIT
(PD-19 BOARD)
CN923 (WHT)
RCH OUT
GND
RCH IN
LCH IN
GND
LCH OUT
STD AU OUT
GND
STD AU IN
TO IF-20 BOARD CN007
(See Page 184)
IC603
TC4053BF
BUS SELECT
Q605 INVERTER
Q606,607 PCM MUTE
Q608,609 SP/LP SWITCH
D601 1S2835
D603 1S2835
D604 1S2837
TP601
CN924 (BLK)
MODE
MONO/STE OUT
MONO/STE IN
PCM MUTE OUT
AFM MUTE OUT
AFM REC/PB
JOG AU MUTE
N.C.
TO IF-20 BOARD CN005
(See Page 184)
CN606 (WHT)
T3
SCK
RF CONT SW P
PCM AREA
GND (DIG)
CHECK PIN
(PCM ERROR RATE CHECK)
Q671 BUFFER
CN602
REG -9V IN
GND (ANA)
REG +9V IN
REG+5V (ANA) IN
NC
NTSC/PAL
PCM RF AREA
AFTER REC MASC
HD INSERT
C MUTE
R AREA
RAMP
COMP SYNC
RF CONT SW P
D RF SW P
PB PCM CAR
GND (PCM CAR)
REC PCM CAR
REC AFM CAR
GND (AFM CAR)
PB AFM CAR
TO MD-23 BOARD CN810
(See Page 131)
CN605 (WHT)
GND
PB CLK IN
EX PB DT
EX PB MK
PB CLK
PB DT
PB MK
GND
(CODING CHECK)
(CHECK PIN)

• SIG

REC
PB


IC601
µPD75106
PCC
IC601
µPD75106
(PCM µ-COM)
MFERS
MFERA
XCE
BUS CONT
RP AF REC
AF REC
VDD
N.C.
AUEE PORT
AFM MUTE
FOL
FOH
PCM PB/REC
AFM REC/PB
REC MUTE
PCM MUTE
R CHG
MODE
PCM ACT
NTSC/CCIR
PCC CS
PCC SCK
PCC SO
PCC SI
N.C.
MONO/STE IN
MUTE ON/OFF
N.C.
N.C.
T3
N.C.
M FE ON
M AF SWP
DET WINDOW
N.C.
N.C.
RESET
CLOCK (x2)
CLOCK (x1)
N.C.
MON/STE OUT
INT 0 TEST
INT 1 TEST
N.C.
SP/LP
V INSERT
JOG OUT
BE 3 PORT
BE 2 PORT
BE 1 PORT
BE 0 PORT
RAREA OFF
ERASE
WRITE
ASM PORT
VSS
DET OUT
FE ON
RF SWP
RF SWP
N.C.
N.C.
Q602,603
AND GATE
Q604
INVERTER
Q602 DTC144EK
Q603 DTC144EK
Q604 DTC144EK
R601 47k
R602 47k
R603 100k
R604 10k
C610 0.047
C603 10µ
C604 10µ
X601 4.19MHz
L601 10µ
C601 0.047
R611 22k
R612 22k
R613 22k
R614 22k
R615 22k
R617 22k
R618 10k
R619 22k
C602 0.047
IC603
TC4053BF
BUS SELECT
IC603 TC4053BF
R625 470
R626 47k
R627 47k
R628 47k
Q605
INVERTER
Q605 DTA144EK
Q606,607
PCM MUTE
Q606 DTA144EK
Q607 DTA144EK
D602 1S2835
D603 1S2835
R629 10k
R630 47k
R631 47k
R637 10k
Q608,609
SP/LP SWITCH
Q608 DTC144EK
Q609 DTA144EK
R638 10k
R639 10k
CHR-1
CHR-2
CHR-3
CHR-4
CHR-5
CHR-6
D604 1S2837
TP601
D601 1S2835
R635 1k
R632 470
R633 47k
R634 10k
C605 0.047 F
C606 0.047
L602 10µ
NTSC/CCIR
R CHG
CSM
RACT IN
RACT OUT
SCK
XCE
PCM SO
PCM SI
DET WINDOW
MFES
MFEA
RESET
MODE
PB MK
EX PB DT
EX PB CLK IN
PB CLK IN
AF MASK
HD INSERT
C MUTE
COMP SYNC
FAST BREAK MASK
AREA
PCM AREA IN
PCM AREA OUT
RF SW P
RAREA
RAMP
FH MAK
WRITE
ERASE
VCC 5V D(D)
UNSW 5V
IDM CSK
IDM SO
IDM SI
IDM CS
GND D(D)
CN924 (BLK)
1 MODE
2 MONO/STE OUT
3 MONO/STE IN
4 PCM MUTE OUT
5 AFM MUTE OUT
6 AFM REC/PB
7 JOG AU MUTE
8 N.C.
TO IF-20 BOARD CN005
(See Page 184)
CN606 (WHT)
1 T3
2 SCK
3 RF CONT SW P
4 PCM AREA
5 GND (DIG)
CHECK PIN
(PCM ERROR RATE CHECK)
CN605 (WHT)
1 GND
2 PB CLK IN
3 EX PB DT
4 EX PB MK
5 EX PB CLK
6 PB DT
7 PB MK
8 GND
(CODING CHECK)
(CHECK PIN)

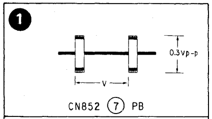
IC651, IC661 (M5201FP)

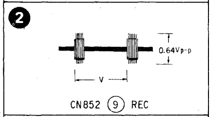

+VDD
-VDD
1
2
3
4
5
6
7
8

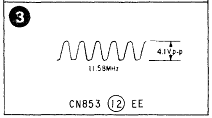
- **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC				➡
PB				⇨

PD-19 BOARD


1
0.3Vp-p
V
CN852 (7) PB


2
0.64Vp-p
V
CN852 (9) REC


3
4.1Vp-p
11.58MHz
CN853 (12) EE

* A-7061-825-A PD-19 BOARD, COMPLETE
****

(DIODE)

D851	8-719-104-34	DIODE 1S2836
D852	8-719-400-18	DIODE MA152WK
D853	8-719-400-18	DIODE MA152WK

(IC)

IC851	8-752-324-45	IC CXD1066Q-Z
IC852	8-759-929-17	IC CXD1051M
IC853	8-752-010-30	IC CX20103
IC854	8-752-010-20	IC CX20102
IC855	8-752-331-00	IC CXK5864BM-12L
IC856	8-759-948-61	IC CX23011-C
IC857	8-759-911-19	IC CX23012
IC858	8-759-972-12	IC CF77305FT
IC859	8-752-809-68	IC CXP5024H-079Q
IC860	8-759-972-13	IC CF77309FR

(TRANSISTOR)

Q851	8-729-102-07	TRANSISTOR 2SC2223
Q852	8-729-122-63	TRANSISTOR 2SA1226
Q853	8-729-102-06	TRANSISTOR 2SC2223
Q853	8-729-102-07	TRANSISTOR 2SC2223

* A-7061-826-A PA-27 BOARD, COMPLETE
****

(DIODE)

D031	8-719-104-34	DIODE 1S2836
D032	8-719-104-34	DIODE 1S2836
D033	8-719-104-34	DIODE 1S2836

(IC)

IC001	8-752-009-90	IC CX20099
IC002	8-759-981-92	IC NJM4558M
IC003	8-759-981-92	IC NJM4558M
IC004	8-752-322-57	IC CXD1077M
IC005	8-759-908-15	IC TL431CLP

(TRANSISTOR)

Q001	8-729-202-38	TRANSISTOR 2SC3326N
Q002	8-729-202-38	TRANSISTOR 2SC3326N
Q031	8-729-901-06	TRANSISTOR DTA144EK
Q032	8-729-901-06	TRANSISTOR DTA144EK
Q033	8-729-901-06	TRANSISTOR DTA144EK
Q034	8-729-216-22	TRANSISTOR 2SA1162
Q035	8-729-216-22	TRANSISTOR 2SA1162
Q051	8-729-202-38	TRANSISTOR 2SC3326N
Q052	8-729-202-38	TRANSISTOR 2SC3326N

PD-19 (PCM AUDIO PROCESS), PA-27 (PCM AUDIO PROCESS) PRINTED WIRING BOARDS

— Ref. No. PD-19, PA-27 BOARD: 7000 series —

PD-19 BOARD (COMPONENT SIDE)

D851	A-2
D852	B-3
D853	C-2
IC851	C-3
IC852	B-2
IC856	C-1
IC857	B-1
IC858	D-2
Q851	B-3

PD-19 BOARD (CONDUCTOR SIDE)

IC853	A-1
IC854	A-2
IC855	C-1
IC859	D-1
IC860	C-2
Q852	A-3
Q853	A-3

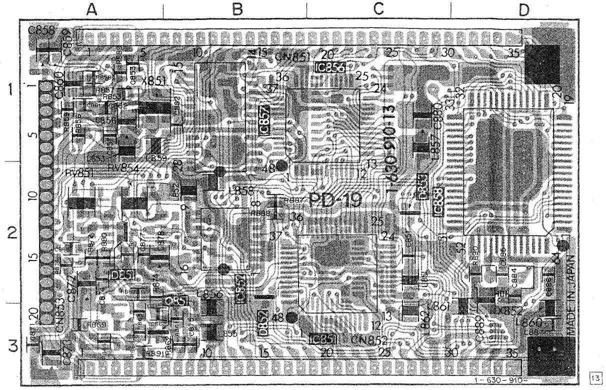
PA-27 BOARD (COMPONENT SIDE)

D033	B-1
IC001	C-2
IC002	B-3
IC003	B-1
IC004	A-2
IC005	A-3

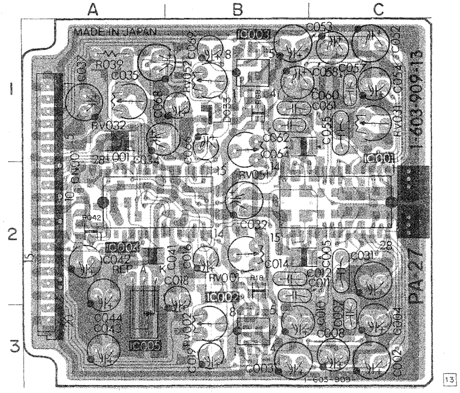
PA-27 BOARD (CONDUCTOR SIDE)

D031	A-2
D032	B-2
Q001	B-3
Q002	B-2
Q031	A-1
Q032	A-1
Q033	A-2
Q034	A-2
Q035	A-2
Q051	B-1
Q052	B-1

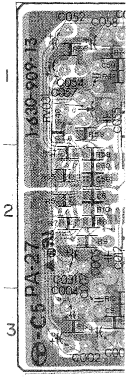
PD-19 BOARD (COMPONENT SIDE)


A
B
C
D
1
2
3
PD-19
1-630-910-13
CN851
CN852
CN853
IC856
IC857
IC851
IC852
IC858
X851
X852
RV851
RV854
MADE IN JAPAN
1-630-910-
13

PA-27 BOARD(COMPONENT SIDE)


A
B
C
1
2
3
MADE IN JAPAN
PA-27
1-603-909-13
IC001
IC002
IC003
IC004
IC005
RV031
RV032
RV051
RV001
CN001
13

PA-27 BOARD (


C
1
2
3
PA-27
1-630-909-13

PD-19 (PCM AUDIO PROCESS), PA-27 (PCM AUDIO PROCESS) PRINTED WIRING BOARDS

— Ref. No. PD-19, PA-27 BOARD: 7000 series —

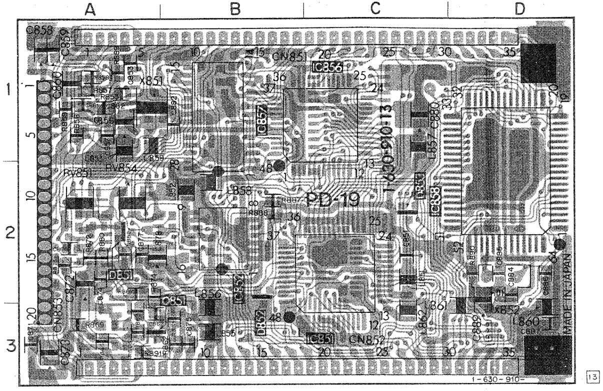
PD-19 BOARD (COMPONENT SIDE)

D851	A-2
D852	B-3
D853	C-2
IC851	C-3
IC852	B-2
IC856	C-1
IC857	B-1
IC858	D-2
Q851	B-3

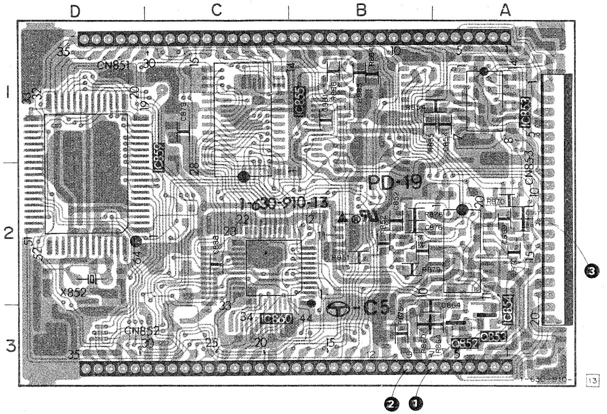
PD-19 BOARD (CONDUCTOR SIDE)

IC853	A-1
IC854	A-2
IC855	C-1
IC859	D-1
IC860	C-2
Q852	A-3
Q853	A-3

PD-19 BOARD (COMPONENT SIDE)


A
B
C
D
1
2
3
CN851
IC856
IC857
X851
RV851
RV854
IC852
D852
IC851
CN852
CN853
D851
D853
IC858
PD-19
1-630-910-13
MADE IN JAPAN
1-630-910-
13

PD-19 BOARD (CONDUCTOR SIDE)


D
C
B
A
1
2
3
CN851
CN852
CN853
IC855
IC859
IC860
IC853
IC854
Q852
Q853
X852
PD-19
1-630-910-13
C5
❸
❷
❶
13

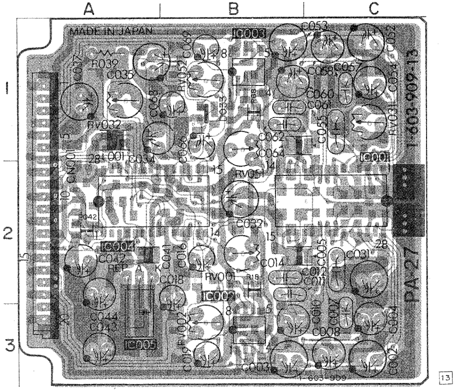
PA-27 BOARD (COMPONENT SIDE)

D033	B-1
IC001	C-2
IC002	B-3
IC003	B-1
IC004	A-2
IC005	A-3

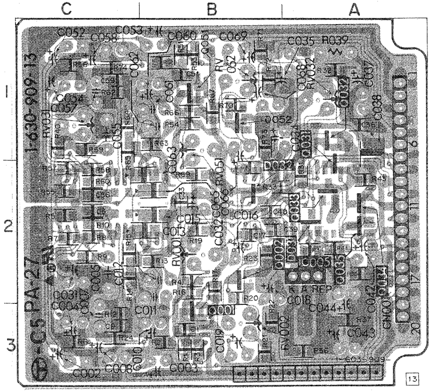
PA-27 BOARD (CONDUCTOR SIDE)

D031	A-2
D032	B-2
Q001	B-3
Q002	B-2
Q031	A-1
Q032	A-1
Q033	A-2
Q034	A-2
Q035	A-2
Q051	B-1
Q052	B-1

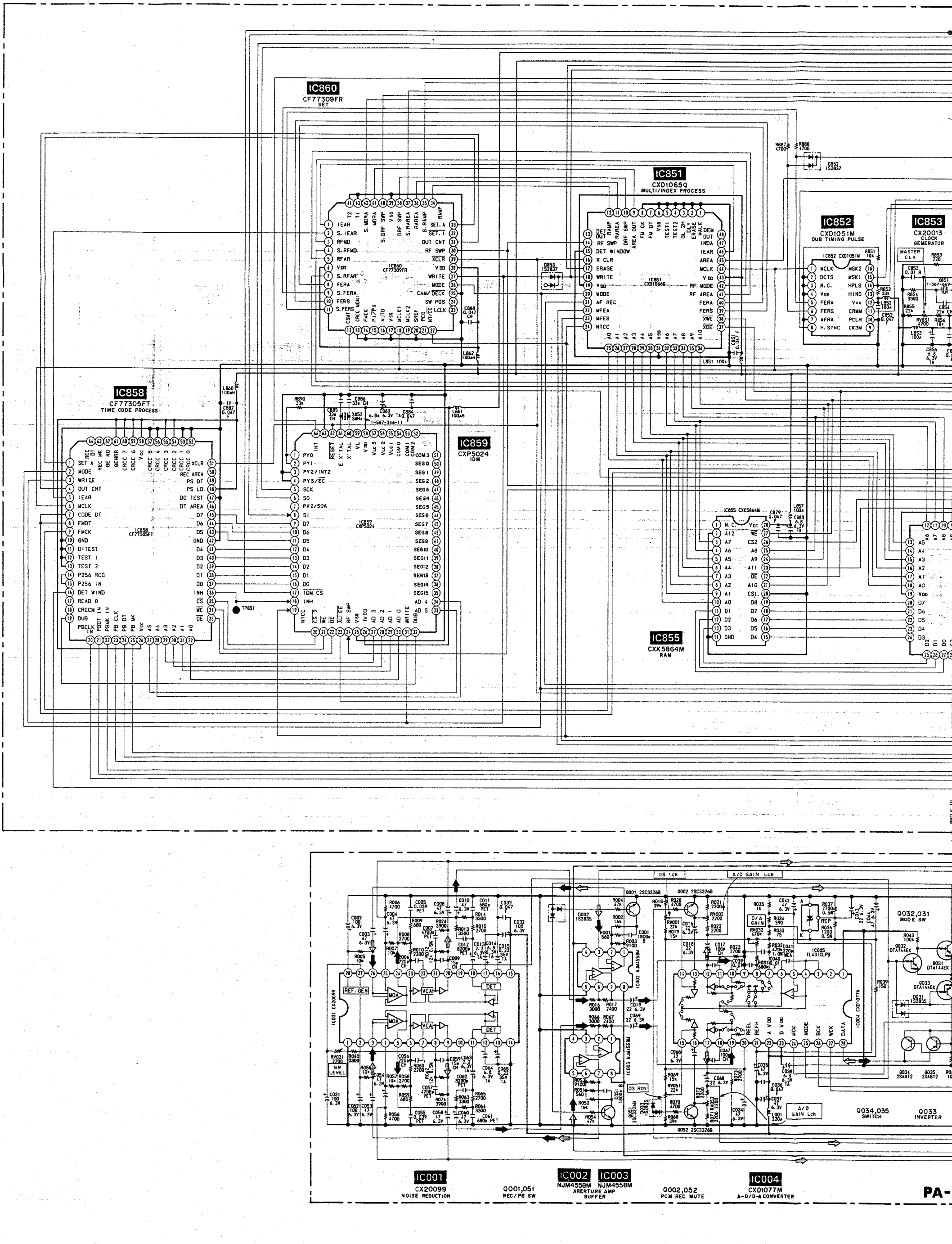
PA-27 BOARD (COMPONENT SIDE)

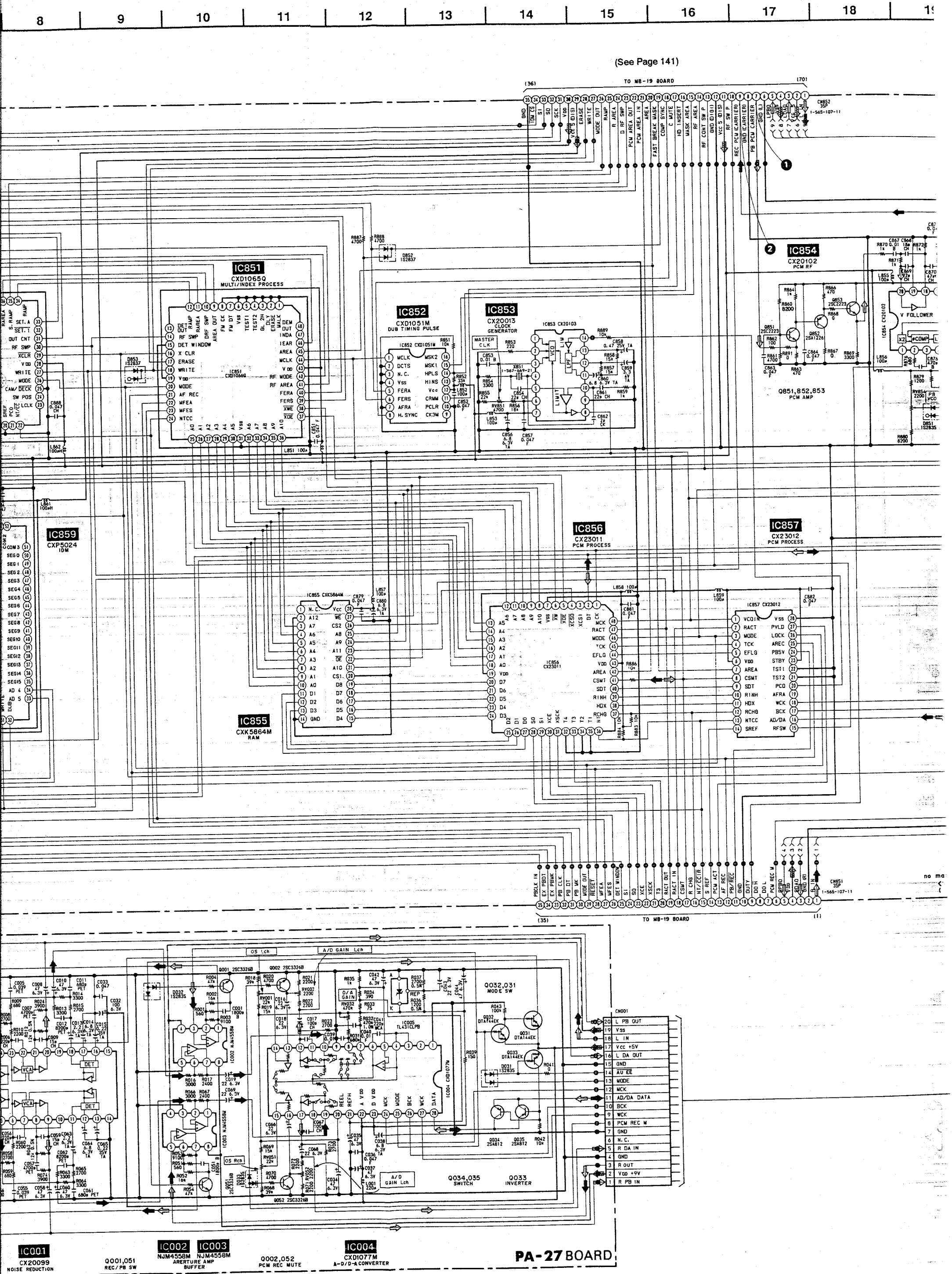

A
B
C
1
2
3
MADE IN JAPAN
IC003
IC001
IC004
IC002
IC005
D033
RV032
RV051
RV001
RV002
RV031
CN001
PA-27
1-603-909-13
1-603-909
13

PA-27 BOARD (CONDUCTOR SIDE)

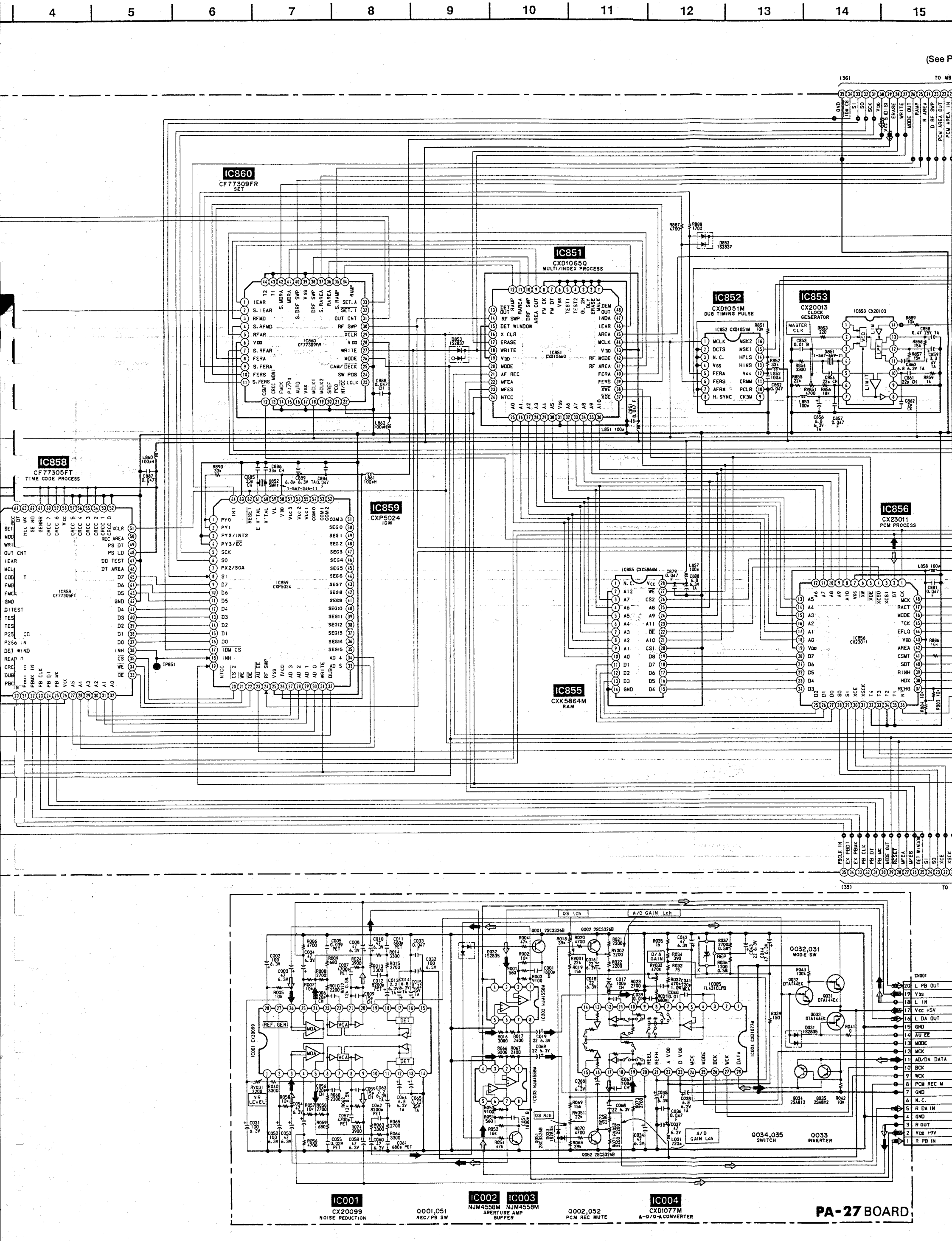

C
B
A
1
2
3
1-630-909-13
PA-27
C5
D031
D032
Q001
Q002
Q031
Q032
Q033
Q034
Q035
Q051
Q052
CN001
1-603-909-
13

-27 BOARD: 7000 series —

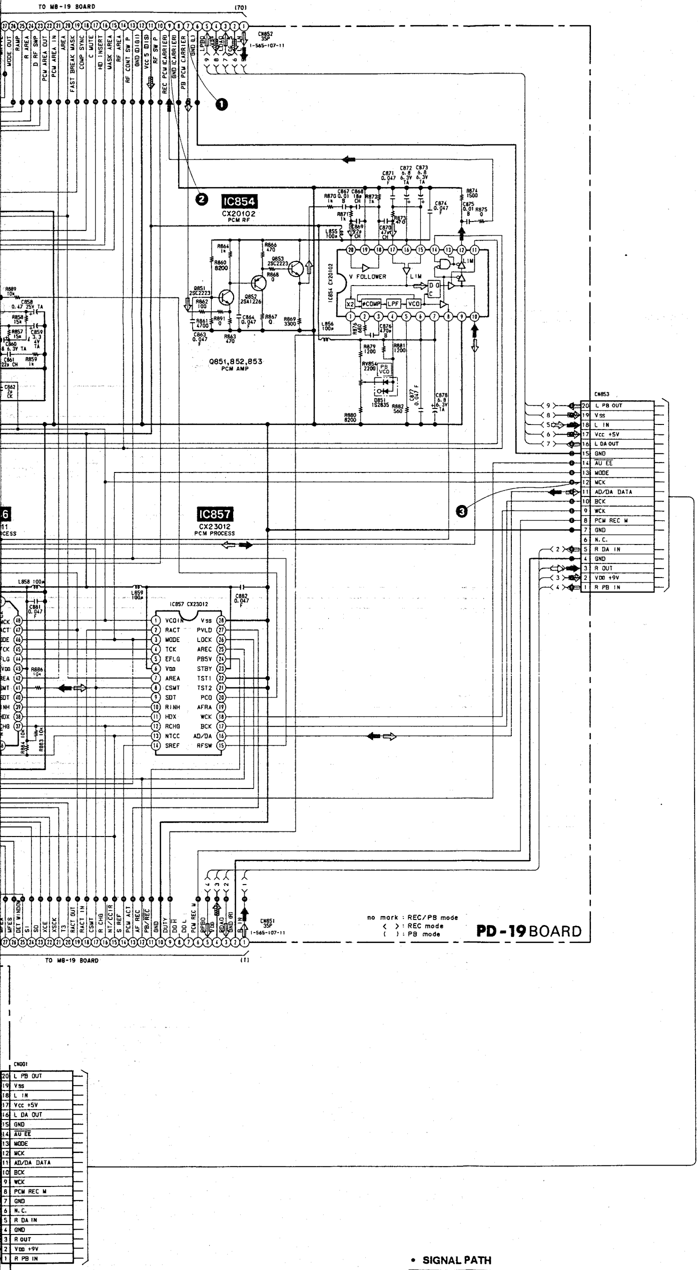

IC860
CF77309FR
SET
IC851
CXD1065Q
MULTI/INDEX PROCESS
IC852
CXD1051M
DUB TIMING PULSE
IC853
CX20013
CLOCK GENERATOR
IC858
CF77305FT
TIME CODE PROCESS
IC859
CXP5024
IDM
IC855
CXK5864M
RAM
TP851
IC001
CX20099
NOISE REDUCTION
Q001,051
REC/PB SW
IC002 IC003
NJM4558M NJM4558M
ARERTURE AMP
BUFFER
Q002,052
PCM REC MUTE
IC004
CXD1077M
A-D/D-A CONVERTER
Q032,031
MODE SW
Q034,035
SWITCH
Q033
INVERTER
OS Lch
A/D GAIN Lch
OS Rch
A/D GAIN Lch
REF. GEN
NR LEVEL
PA-


8
9
10
11
12
13
14
15
16
17
18
TO MB-19 BOARD
CN852 35P 1-565-107-11
IC851
CXD1065Q
MULTI/INDEX PROCESS
IC852
CXD1051M
DUB TIMING PULSE
IC853
CX20013
CLOCK GENERATOR
IC854
CX20102
PCM RF
Q851,852,853
PCM AMP
IC859
CXP5024
IDM
IC855
CXK5864M
RAM
IC856
CX23011
PCM PROCESS
IC857
CX23012
PCM PROCESS
CN851 35P 1-565-107-11
TO MB-19 BOARD
Q032,031
MODE SW
Q034,035
SWITCH
Q033
INVERTER
IC001
CX20099
NOISE REDUCTION
Q001,051
REC/PB SW
IC002
NJM4558M
ARERTURE AMP
IC003
NJM4558M
BUFFER
Q002,052
PCM REC MUTE
IC004
CXD1077M
A-D/D-A CONVERTER
PA-27 BOARD

(See Page 141)


4
5
6
7
8
9
10
11
12
13
14
15
(See P
IC860
CF77309FR
SET
IC851
CXD1065Q
MULTI/INDEX PROCESS
IC852
CXD1051M
DUB TIMING PULSE
IC853
CX20013
CLOCK GENERATOR
IC858
CF77305FT
TIME CODE PROCESS
IC859
CXP5024
IDM
IC856
CX23011
PCM PROCESS
IC855
CXK5864M
RAM
OS Lch
A/D GAIN Lch
OS Rch
A/D GAIN Lch
Q032,031
MODE SW
Q034,035
SWITCH
Q033
INVERTER
CN001
1 R PB IN
2 VDD +9V
3 R OUT
4 GND
5 R DA IN
6 N.C.
7 GND
8 PCM REC M
9 WCK
10 BCK
11 AD/DA DATA
12 MCK
13 MODE
14 AU EE
15 GND
16 L DA OUT
17 Vcc +5V
18 L IN
19 Vss
20 L PB OUT
IC001
CX20099
NOISE REDUCTION
Q001,051
REC/PB SW
IC002
NJM4558M
IC003
NJM4558M
ARERTURE AMP
BUFFER
Q002,052
PCM REC MUTE
IC004
CXD1077M
A-D/D-A CONVERTER
PA-27 BOARD

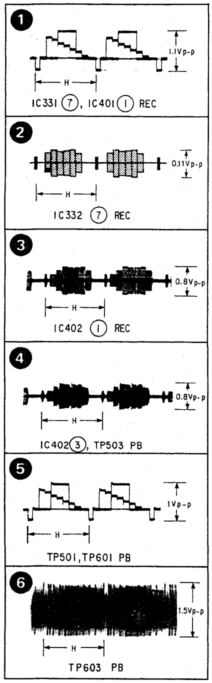
(See Page 141)


TO MB-19 BOARD
(70)
MODE OUT
RAMP
R AREA
D RF SWP
PCM AREA OUT
PCM AREA IN
AREA
FAST BREAK MASK
COMP SYNC
C MUTE
HD INSERT
MASK AREA
RF AREA
RF CONT SW P
GND (DIGI)
Vcc 5 (DIS)
RF SW P
REC PCM (CARRIER)
GND (CARRIER)
PB PCM CARRIER
GND (L)
LPBO
VSS
LDAO
Vcc
L IN
CN852
35P
1-565-107-11
❶
❷
IC854
CX20102
PCM RF
R870 1k
C867 0.01 B
C868 18p CH
R872 1k
C871 0.047 F
C872 6.8 6.3V TA
C873 6.8 6.3V TA
R874 1500
C875 0.01 B
R875 0
C874 0.047 F
R871 1k
R873 470
C869 22p CH
C870 47p CH
L855 100μ
R864 1k
R860 8200
R866 470
Q853 2SC2223
R868 0
Q851 2SC2223
Q852 2SA1226
R862 100
R861 4700
R891 0
C864 0.047 F
R867 0
R869 3300
C863 0.047 F
R863 470
Q851,852,853
PCM AMP
IC854 CX20102
V FOLLOWER
LIM
D Q
C
X2
ϕCOMP
LPF
VCO
L856 100μ
R876 680
C876 470p B
R879 1200
R881 1200
RV854 2200
PB VCO
D851 1S2835
R882 560
C877 0.047 F
C878 6.8 6.3V TA
R880 8200
R889 10k
C858 0.47 25V TA
R858 15k
R857 15k
C859 3.3 4V TA
C860 8 6.3V TA
C861 22p CH
R859 1k
C862 2p CK
CN853
20 L PB OUT
19 Vss
18 L IN
17 Vcc +5V
16 L DA OUT
15 GND
14 AU EE
13 MODE
12 MCK
11 AD/DA DATA
10 BCK
9 WCK
8 PCM REC M
7 GND
6 N.C.
5 R DA IN
4 GND
3 R OUT
2 VDD +9V
1 R PB IN
❸
IC857
CX23012
PCM PROCESS
L858 100μ
C881 0.047 F
L859 100μ
C882 0.047 F
R886 10k
R883 10k
R884 10k
IC857 CX23012
1 VCOIN
2 RACT
3 MODE
4 TCK
5 EFLG
6 VDD
7 AREA
8 CSMT
9 SDT
10 RINH
11 HDX
12 RCHG
13 NTCC
14 SREF
28 Vss
27 PVLD
26 LOCK
25 AREC
24 PBSV
23 STBY
22 TST1
21 TST2
20 PCO
19 AFRA
18 WCK
17 BCK
16 AD/DA
15 RFSW
MFES
DET WINDOW
SI
SO
XCE
XSCK
T3
RACT OUT
RACT IN
CSMT
R CHG
NT/CCIR
S REF
PCM ACT
AF REC
PB/REC
GND
DUTY
DO H
DO L
PCM REC M
RPBO
VDD
RDAO
GND (R)
R IN
CN851
35P
1-565-107-11
TO MB-19 BOARD
(1)
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode
PD-19 BOARD
CN001
20 L PB OUT
19 Vss
18 L IN
17 Vcc +5V
16 L DA OUT
15 GND
14 AU EE
13 MODE
12 MCK
11 AD/DA DATA
10 BCK
9 WCK
8 PCM REC M
7 GND
6 N.C.
5 R DA IN
4 GND
3 R OUT
2 VDD +9V
1 R PB IN

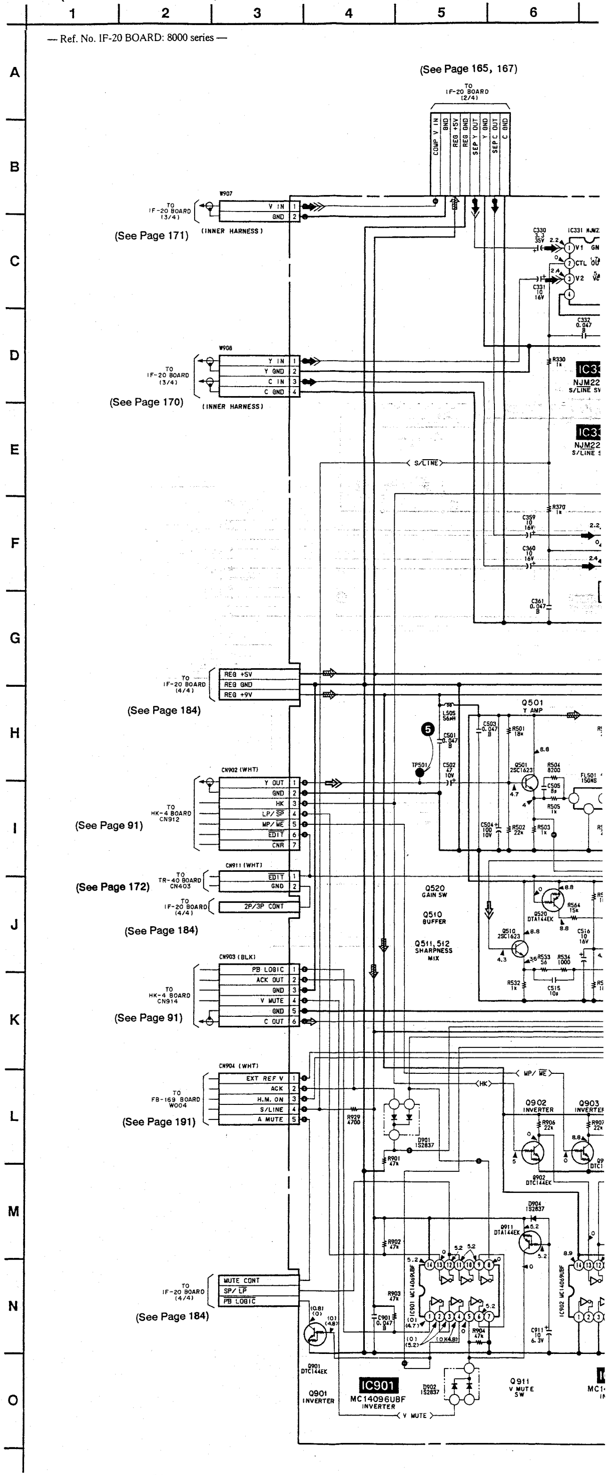
- **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC				➡
PB				⇨

IF-20 BOARD(1/4)



IF-20 (VIDEO SIGNAL SELECT, SHARPNESS, NOISE CANCEL) SCHEMATIC DIAGRAM

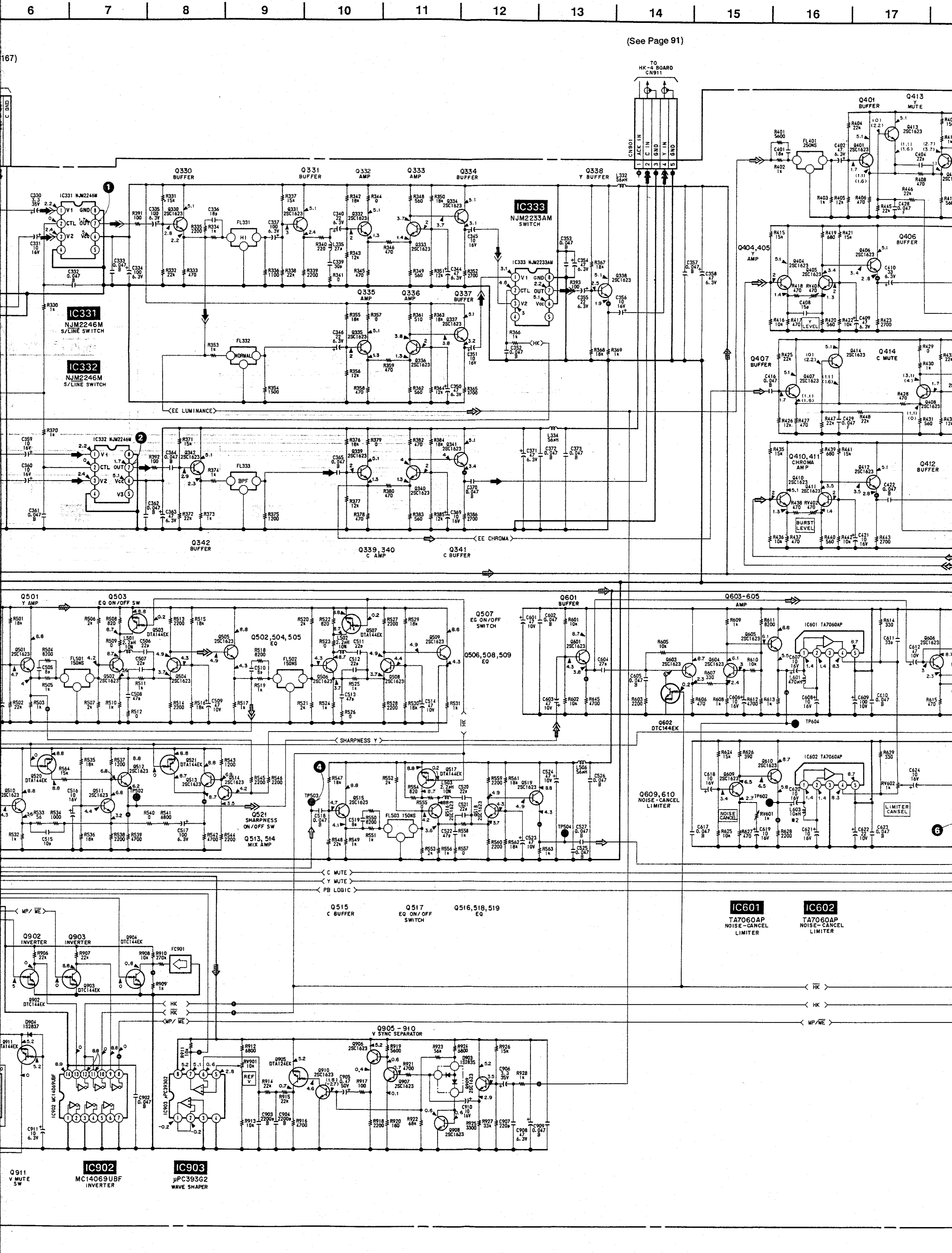

1
2
3
4
5
6
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
— Ref. No. IF-20 BOARD: 8000 series —
(See Page 165, 167)
TO IF-20 BOARD (2/4)
COMP V IN
GND
REG +5V
REG GND
SEP Y OUT
Y GND
SEP C OUT
C GND
W907
TO IF-20 BOARD (3/4)
V IN
GND
(INNER HARNESS)
(See Page 171)
W908
TO IF-20 BOARD (3/4)
Y IN
Y GND
C IN
C GND
(INNER HARNESS)
(See Page 170)
S/LINE
C330 3.3 35V
C331 10 16V
C332 0.047
IC331 NJM2
R330 1k
NJM22
S/LINE SW
R370 1k
C359 10 16V
C360 10 16V
C361 0.047
TO IF-20 BOARD (4/4)
REG +5V
REG GND
REG +9V
(See Page 184)
Q501 Y AMP
L505 56μH
C501 0.047
C502 47 10V
C503 0.047
R501 18k
Q501 2SC1623
R504 8200
C505
FL501 150NS
R505 1k
C504 100 10V
R502 22k
R503 1k
TP501
CN902 (WHT)
TO HK-4 BOARD CN912
Y OUT
GND
HK
LP/SP
MP/ME
EDIT
CNR
(See Page 91)
CN911 (WHT)
TO TR-40 BOARD CN403
EDIT
GND
(See Page 172)
TO IF-20 BOARD (4/4)
2P/3P CONT
(See Page 184)
Q520 GAIN SW
Q510 BUFFER
Q511, 512 SHARPNESS MIX
Q520 DTA144EK
R564 15k
Q510 2SC1623
C516 10 16V
R533 56
R534 1000
R532 1k
C515 10p
CN903 (BLK)
TO HK-4 BOARD CN914
PB LOGIC
ACK OUT
GND
V MUTE
GND
C OUT
(See Page 91)
CN904 (WHT)
TO FB-169 BOARD W004
EXT REF V
ACK
H.M. ON
S/LINE
A MUTE
(See Page 191)
MP/ME
HK
R929 4700
D901 1S2837
R901 47k
Q902 INVERTER
Q903 INVERTER
R906 22k
R907 22k
Q902 DTC144EK
D904 1S2837
Q911 DTA144EK
R902 47k
R903 47k
C901 0.047
R904 47k
IC901 MC14096UBF
IC902 MC14069UBF
C911 10 6.3V
TO IF-20 BOARD (4/4)
MUTE CONT
SP/LP
PB LOGIC
(See Page 184)
Q901 DTC144EK
Q901 INVERTER
IC901 MC14096UBF INVERTER
D902 1S2837
Q911 V MUTE SW
V MUTE

• **SIGNAL PATH**

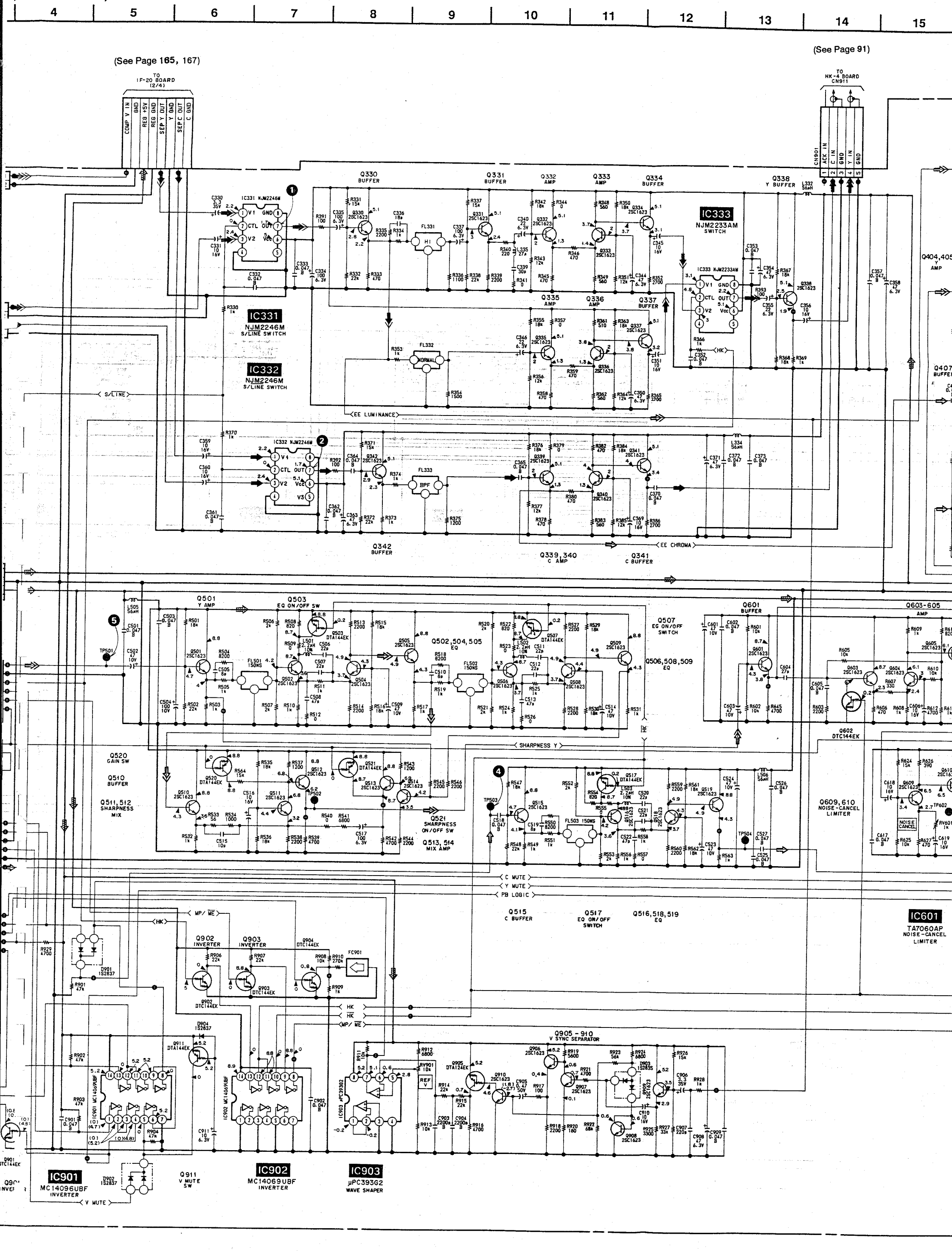
	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC	➡	➡➡	➡➡➡	
PB	⇨	⇨⇨		

(See Page 91)

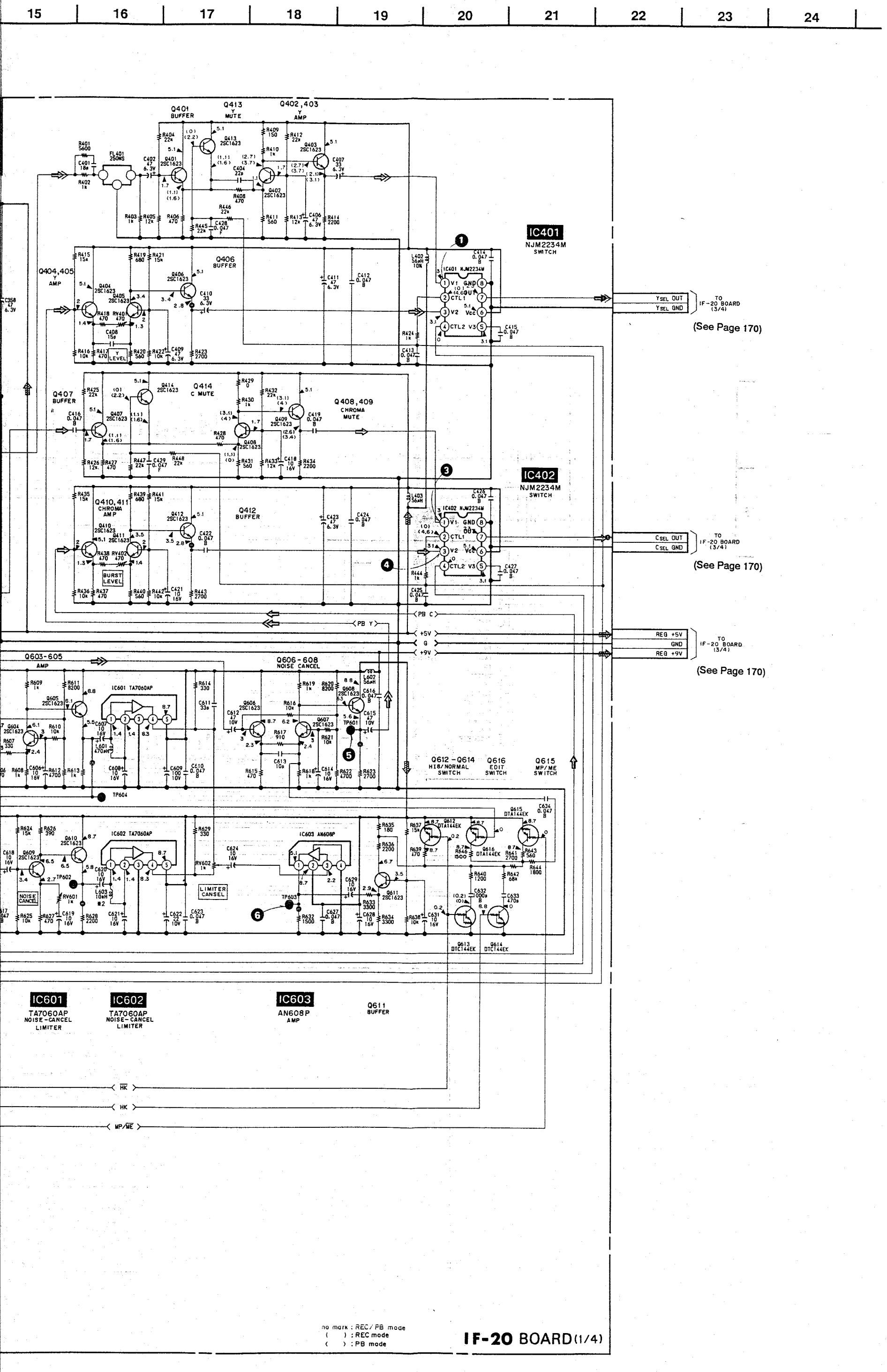
167)


6
7
8
9
10
11
12
13
14
15
16
17
TO HK-4 BOARD CN911
CN901
ACK IN
C IN
GND
Y IN
GND
IC331
NJM2246M
S/LINE SWITCH
IC332
NJM2246M
S/LINE SWITCH
IC333
NJM2233AM
SWITCH
Q330 BUFFER
Q331 BUFFER
Q332 AMP
Q333 AMP
Q334 BUFFER
Q338 Y BUFFER
Q335 AMP
Q336 AMP
Q337 BUFFER
FL331
FL332
FL333
HI
NORMAL
BPF
EE LUMINANCE
EE CHROMA
Q342 BUFFER
Q339,340 C AMP
Q341 C BUFFER
Q401 BUFFER
Q413 Y MUTE
Q404,405 Y AMP
Q406 BUFFER
Y LEVEL
Q407 BUFFER
Q414 C MUTE
Q410,411 CHROMA AMP
Q412 BUFFER
BURST LEVEL
Q501 Y AMP
Q503 EQ ON/OFF SW
Q502,504,505 EQ
Q507 EQ ON/OFF SWITCH
Q506,508,509 EQ
SHARPNESS Y
Q521 SHARPNESS ON/OFF SW
Q513, 514 MIX AMP
Q515 C BUFFER
Q517 EQ ON/OFF SWITCH
Q516,518,519 EQ
C MUTE
Y MUTE
PB LOGIC
Q601 BUFFER
Q602 DTC144EK
Q603-605 AMP
IC601 TA7060AP
IC602 TA7060AP
TP604
NOISE CANCEL
LIMITER CANSEL
Q609,610 NOISE-CANCEL LIMITER
IC601
TA7060AP
NOISE-CANCEL LIMITER
IC602
TA7060AP
NOISE-CANCEL LIMITER
MP/ME
Q902 INVERTER
Q903 INVERTER
Q904 DTC144EK
FC901
HK
Q905 - 910 V SYNC SEPARATOR
IC902 MC14069UBF
IC903 μPC393G2
Q911 V MUTE SW
IC902
MC14069UBF
INVERTER
IC903
μPC393G2
WAVE SHAPER
TP502
TP503
TP504
1
2
4
6

S, NOISE CANCEL) SCHEMATIC DIAGRAM


4
5
6
7
8
9
10
11
12
13
14
15
(See Page 165, 167)
TO IF-20 BOARD (2/4)
COMP V IN
GND
REG +5V
REG GND
SEP Y OUT
Y GND
SEP C OUT
C GND
(See Page 91)
TO HK-4 BOARD CN911
CN901
ACK IN
C IN
GND
Y IN
GND
Q330 BUFFER
Q331 BUFFER
Q332 AMP
Q333 AMP
Q334 BUFFER
Q338 Y BUFFER
IC333
NJM2233AM SWITCH
IC331
NJM2246M S/LINE SWITCH
IC332
NJM2246M S/LINE SWITCH
Q335 AMP
Q336 AMP
Q337 BUFFER
FL331
FL332
NORMAL
FL333
BPF
S/LINE
EE LUMINANCE
EE CHROMA
Q342 BUFFER
Q339,340 C AMP
Q341 C BUFFER
Q404,405 AMP
Q407 BUFFER
Q501 Y AMP
Q503 EQ ON/OFF SW
Q502,504,505 EQ
Q506,508,509 EQ
Q507 EG ON/OFF SWITCH
Q601 BUFFER
Q603-605 AMP
Q602 DTC144EK
FL501 150NS
FL502 150NS
FL503 150NS
TP501
TP502
TP503
TP504
TP602
SHARPNESS Y
HK
Q520 GAIN SW
Q510 BUFFER
Q511,512 SHARPNESS MIX
Q521 SHARPNESS ON/OFF SW
Q513,514 MIX AMP
Q609,610 NOISE-CANCEL LIMITER
NOISE CANCEL
C MUTE
Y MUTE
PB LOGIC
Q515 C BUFFER
Q517 EQ ON/OFF SWITCH
Q516,518,519 EQ
IC601
TA7060AP NOISE-CANCEL LIMITER
MP/ME
Q902 INVERTER
Q903 INVERTER
Q904 DTC144EK
FC901
D901 1S2837
Q905-910 V SYNC SEPARATOR
Q911 DTA144EK
D904 1S2837
REF
D903 1S2835
IC901
MC14096UBF INVERTER
D902 1S2837
Q911 V MUTE SW
V MUTE
IC902
MC14069UBF INVERTER
IC903
μPC393G2 WAVE SHAPER
Q901 DTC144EK
Q90 INVER

VIDEO, AUDIO IN/OUT


15
16
17
18
19
20
21
22
23
24
Q401 BUFFER
Q413 Y MUTE
Q402,403 Y AMP
FL401 250NS
Q401 2SC1623
Q413 2SC1623
Q402 2SC1623
Q403 2SC1623
IC401 NJM2234M SWITCH
Q404,405 Y AMP
Q404 2SC1623
Q405 2SC1623
Q406 BUFFER
Q406 2SC1623
Y LEVEL
Q407 BUFFER
Q407 2SC1623
Q414 C MUTE
Q414 2SC1623
Q408,409 CHROMA MUTE
Q408 2SC1623
Q409 2SC1623
IC402 NJM2234M SWITCH
Q410,411 CHROMA AMP
Q410 2SC1623
Q411 2SC1623
Q412 BUFFER
Q412 2SC1623
BURST LEVEL
V1
GND
OUT
CTL1
V2
Vcc
CTL2
V3
YSEL OUT
YSEL GND
TO IF-20 BOARD (3/4)
(See Page 170)
CSEL OUT
CSEL GND
TO IF-20 BOARD (3/4)
(See Page 170)
PB C
PB Y
+5V
G
+9V
REG +5V
GND
REG +9V
TO IF-20 BOARD (3/4)
(See Page 170)
Q603-605 AMP
Q606-608 NOISE CANCEL
IC601 TA7060AP
Q604 2SC1623
Q605 2SC1623
Q606 2SC1623
Q607 2SC1623
Q608 2SC1623
TP601
TP604
Q612-Q614 HI8/NORMAL SWITCH
Q616 EDIT SWITCH
Q615 MP/ME SWITCH
IC602 TA7060AP
Q609 2SC1623
Q610 2SC1623
TP602
NOISE CANCEL
LIMITER CANSEL
IC603 AN608P
TP603
Q611 2SC1623
Q612 DTA144EK
Q615 DTA144EK
Q616 DTA144EK
Q613 DTC144EK
Q614 DTC144EK
IC601 TA7060AP NOISE-CANCEL LIMITER
IC602 TA7060AP NOISE-CANCEL LIMITER
IC603 AN608P AMP
Q611 BUFFER
HK
HK
MP/ME
①
③
④
⑤
⑥

no mark : REC/PB mode
( ) : REC mode
( ) : PB mode

IF-20 BOARD(1/4)

VIDEO, AUDIO IN/OUT　**VIDEO, AUDIO IN/OUT**

IF-20 (VIDEO SIGNAL SELECT, SHARPNESS, NOISE CANCEL, YX FILTER, Y/C MIX, AUDIO SIGNAL SELECT), JB-4 (VIDEO, AUDIO JACK), JB-5 (VIDEO, AUDIO, RFU DC OUT JACK), TR-40 (S VIDEO JACK EDIT, SYNC SWITCH) PRINTED WIRING

— Ref. No. IF-20 BOARD: 8000 series, JB-4, JB-5, TR-40 BOARD: 3000 series —

IF-20 BOARD (COMPONENT SIDE)

D001	F-2
D004	F-1
D060	H-2
D165	H-2
D166	H-1
D168	G-2
D169	H-1
D170	G-1
D171	G-2
D904	D-3
IC001	G-3
IC003	E-3
IC004	E-1
IC005	F-1
IC006	G-1
IC051	H-3
IC054	E-2
IC055	F-2
IC056	G-2
IC165	G-1
IC201	A-2
IC202	B-2
IC331	A-4
IC332	B-4
IC333	A-5
IC401	F-5
IC402	H-4
IC705	G-5
IC901	D-2
IC902	D-2
IC903	C-5
Q001	E-1
Q006	G-2
Q008	G-1
Q010	H-3
Q011	H-2
Q057	G-2
Q060	H-3
Q166	H-2
Q179	H-1
Q180	H-1
Q182	H-2
Q184	H-2
Q188	G-1
Q191	I-3
Q206	A-1
Q213	B-2
Q222	B-3
Q223	C-2
Q224	B-3
Q225	B-3
Q226	B-3
Q227	C-3
Q228	C-3
Q334	A-5
Q407	G-4
Q408	G-4
Q409	G-4
Q412	H-4
Q414	G-4
Q503	C-4
Q504	C-4
Q507	C-5
Q508	C-5
Q510	C-5
Q517	F-4
Q518	F-5
Q521	C-5
Q607	E-5
Q614	E-5
Q702	H-5
Q703	H-5
Q704	H-5
Q705	H-5
Q707	I-5
Q708	I-5
Q709	I-5
Q710	I-5
Q711	J-5
Q716	I-5
Q717	I-5
Q718	I-5
Q721	J-5
Q722	G-5
Q724	J-5
Q725	J-5
Q901	D-3
Q906	A-5
Q907	A-5

IF-20 BOARD (CONDUCTOR SIDE)

D002	E-1
D003	F-1
D010	H-3
D051	E-2
D052	G-1
D053	F-1
D054	G-2
D167	H-1
D201	B-3
D901	D-2
D902	D-2
D903	A-5
IC601	D-4
IC602	D-5
IC603	E-5
IC701	H-4
IC702	H-5
IC703	G-5
IC704	G-4
IC801	I-4
IC802	J-4
Q002	E-2
Q003	E-1
Q004	F-1
Q005	F-1
Q007	G-2
Q051	E-2
Q052	F-2
Q053	F-2
Q054	F-2
Q055	F-2
Q056	G-2
Q061	H-2
Q165	H-2
Q167	H-2
Q168	H-2
Q169	H-3
Q170	H-1
Q171	H-1
Q172	G-2
Q174	H-1
Q175	H-1
Q176	H-1
Q177	G-1
Q178	G-1
Q181	H-1
Q183	H-2
Q186	H-1
Q201	B-1
Q202	B-1
Q203	B-1
Q204	B-1
Q205	A-2
Q207	A-2
Q208	A-2
Q209	A-3
Q210	A-3
Q211	C-1
Q212	B-1
Q214	B-2
Q215	B-2
Q216	B-3
Q217	C-1
Q220	C-2
Q221	B-2
Q229	B-2
Q230	C-3
Q231	C-3
Q233	C-2
Q234	C-3
Q330	A-4
Q331	B-4
Q332	A-5
Q333	B-5
Q335	A-4
Q336	A-5
Q337	A-5
Q338	A-5
Q339	B-4
Q340	B-5
Q341	B-5
Q342	B-4
Q401	F-5
Q402	F-5
Q403	F-5
Q404	E-5
Q405	F-5
Q406	F-5
Q410	H-4
Q411	H-4
Q413	F-5
Q501	C-4
Q502	C-4
Q505	C-4
Q506	C-5
Q509	C-5
Q511	D-5
Q512	D-5
Q513	C-4
Q514	D-4
Q515	F-4
Q516	F-4
Q519	F-4
Q520	D-5
Q601	D-4
Q602	D-4
Q603	D-4
Q604	D-4
Q605	D-4
Q606	E-5
Q608	E-5
Q609	D-5
Q610	D-5
Q611	E-5
Q612	E-5
Q613	E-5
Q615	E-5
Q616	D-5
Q701	H-5
Q706	H-5
Q712	J-5
Q713	I-5
Q714	I-5
Q715	H-5
Q719	G-5
Q720	G-5
Q723	J-5
Q726	I-5
Q727	I-5
Q902	D-1
Q903	D-2
Q904	C-5
Q905	B-5
Q908	A-5
Q909	A-5
Q910	B-5
Q911	D-3

* A-7062-009-A IF-20 BOARD, COMPLETE
****

(DIODE)

D001	8-719-104-34	DIODE 1S2836
D002	8-719-104-34	DIODE 1S2836
D003	8-719-104-34	DIODE 1S2836
D004	8-719-104-34	DIODE 1S2836
D010	8-719-800-76	DIODE 1SS226
D051	8-719-104-34	DIODE 1S2836
D052	8-719-104-34	DIODE 1S2836
D053	8-719-104-34	DIODE 1S2836
D054	8-719-104-34	DIODE 1S2836
D060	8-719-800-76	DIODE 1SS226
D165	8-719-400-18	DIODE MA152WK
D166	8-719-400-18	DIODE MA152WK
D167	8-719-800-76	DIODE 1SS226
D168	8-719-800-76	DIODE 1SS226
D169	8-719-800-76	DIODE 1SS226
D170	8-719-800-76	DIODE 1SS226
D171	8-719-104-34	DIODE 1S2836
D201	8-719-800-76	DIODE 1SS226
D901	8-719-400-18	DIODE MA152WK
D902	8-719-400-18	DIODE MA152WK
D903	8-719-104-34	DIODE 1S2836
D904	8-719-400-18	DIODE MA152WK

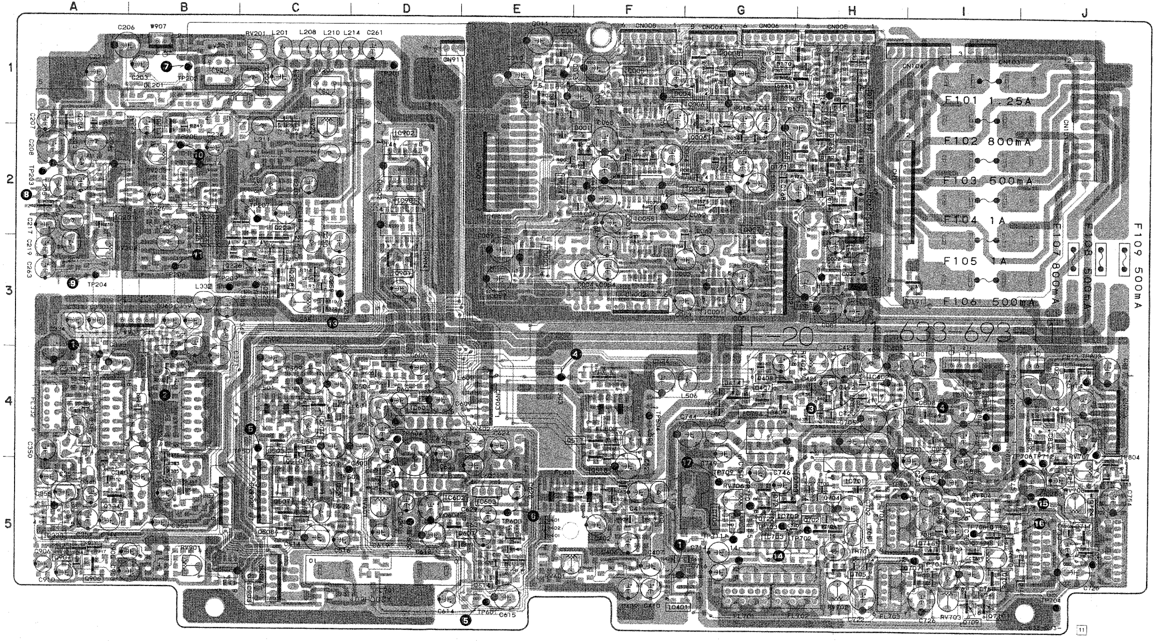
(IC)

IC001	8-759-981-92	IC RC4558M
IC003	8-759-981-92	IC RC4558M
IC004	8-759-981-92	IC RC4558M
IC005	8-759-932-64	IC BU4052BF
IC006	8-759-981-92	IC RC4558M
IC051	8-759-981-92	IC RC4558M
IC054	8-759-981-92	IC RC4558M
IC055	8-759-932-64	IC BU4052BF
IC056	8-759-981-92	IC RC4558M
IC165	8-759-200-67	IC TC4001BF
IC201	8-759-030-55	IC MC1496MR
IC202	8-759-030-55	IC MC1496MR
IC331	8-759-710-62	IC NJM2246M
IC332	8-759-710-62	IC NJM2246M
IC333	8-759-710-09	IC NJM2233AM
IC401	8-759-711-71	IC NJM2234M
IC402	8-759-711-71	IC NJM2234M
IC601	8-759-200-60	IC TA7060AP
IC602	8-759-200-60	IC TA7060AP
IC603	8-759-400-06	IC AN608P
IC701	8-759-200-60	IC TA7060AP
IC702	8-759-402-33	IC AN607P
IC703	8-752-201-30	IC CX22013
IC704	8-759-969-13	IC SN16913P
IC705	8-759-101-12	IC uPC311G2
IC801	8-752-009-51	IC CX20095A
IC802	8-752-009-51	IC CX20095A
IC901	8-759-009-10	IC MC14069UBF
IC902	8-759-009-10	IC MC14069UBF
IC903	8-759-100-93	IC uPC393G2

(TRANSISTOR)

Q001	8-729-202-38	TRANSISTOR 2SC3326N
Q002	8-729-202-38	TRANSISTOR 2SC3326N
Q003	8-729-202-38	TRANSISTOR 2SC3326N
Q004	8-729-202-38	TRANSISTOR 2SC3326N
Q005	8-729-202-38	TRANSISTOR 2SC3326N
Q006	8-729-202-38	TRANSISTOR 2SC3326N
Q007	8-729-202-38	TRANSISTOR 2SC3326N
Q008	8-729-202-38	TRANSISTOR 2SC3326N
Q010	8-729-140-75	TRANSISTOR 2SD999
Q011	8-729-901-06	TRANSISTOR DTA144EK
Q051	8-729-202-38	TRANSISTOR 2SC3326N
Q052	8-729-202-38	TRANSISTOR 2SC3326N
Q053	8-729-202-38	TRANSISTOR 2SC3326N
Q054	8-729-202-38	TRANSISTOR 2SC3326N
Q055	8-729-202-38	TRANSISTOR 2SC3326N
Q056	8-729-202-38	TRANSISTC
Q057	8-729-202-38	TRANSISTC
Q060	8-729-101-07	TRANSISTC
Q061	8-729-901-01	TRANSISTC
Q165	8-729-901-06	TRANSISTC
Q166	8-729-901-01	TRANSISTC
Q167	8-729-100-66	TRANSISTC
Q168	8-729-901-06	TRANSISTC
Q169	8-729-901-06	TRANSISTC
Q170	8-729-901-06	TRANSISTC
Q171	8-729-901-06	TRANSISTC
Q172	8-729-100-66	TRANSISTC
Q174	8-729-901-06	TRANSISTC
Q175	8-729-901-06	TRANSISTC
Q176	8-729-901-06	TRANSISTC

IF-20 BOARD (COMPONENT SIDE)



IF-

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2
3
4
5
F109
500mA

'ID'EO JACK EDIT, SYNC SWITCH) PRINTED WIRING BOARDS

(TRANSISTOR)

	02 3	TRANSISTOR 2SC3326N
	02 3	TRANSISTOR 2SC3326N
	02-38	TRANSISTOR 2SC3326N
	02-38	TRANSISTOR 2SC3326N
	02 3	TRANSISTOR 2SC3326N
	02-38	TRANSISTOR 2SC3326N
	02-38	TRANSISTOR 2SC3326N
	02 3	TRANSISTOR 2SC3326N
	40 5	TRANSISTOR 2SD999
	01-06	TRANSISTOR DTA144EK
	02 3	TRANSISTOR 2SC3326N
	02 3	TRANSISTOR 2SC3326N
	02-38	TRANSISTOR 2SC3326N
	02-38	TRANSISTOR 2SC3326N
	02 3	TRANSISTOR 2SC3326N
Q056	8-729-202-38	TRANSISTOR 2SC3326N
Q057	8-729-202-38	TRANSISTOR 2SC3326N
Q060	8-729-101-07	TRANSISTOR 2SB798
Q061	8-729-901-01	TRANSISTOR DTC144EK
Q165	8-729-901-06	TRANSISTOR DTA144EK
Q166	8-729-901-01	TRANSISTOR DTC144EK
Q167	8-729-100-66	TRANSISTOR 2SC1623
Q168	8-729-901-06	TRANSISTOR DTA144EK
Q169	8-729-901-06	TRANSISTOR DTA144EK
Q170	8-729-901-06	TRANSISTOR DTA144EK
Q171	8-729-901-06	TRANSISTOR DTA144EK
Q172	8-729-100-66	TRANSISTOR 2SC1623
Q174	8-729-901-06	TRANSISTOR DTA144EK
Q175	8-729-901-06	TRANSISTOR DTA144EK
Q176	8-729-901-06	TRANSISTOR DTA144EK
Q177	8-729-901-06	TRANSISTOR DTA144EK
Q178	8-729-901-01	TRANSISTOR DTC144EK
Q179	8-729-901-06	TRANSISTOR DTA144EK
Q180	8-729-901-01	TRANSISTOR DTC144EK
Q181	8-729-901-01	TRANSISTOR DTC144EK
Q182	8-729-216-22	TRANSISTOR 2SA1162
Q183	8-729-901-01	TRANSISTOR DTC144EK
Q184	8-729-901-01	TRANSISTOR DTC144EK
Q186	8-729-901-06	TRANSISTOR DTA144EK
Q188	8-729-901-06	TRANSISTOR DTA144EK
Q191	8-729-216-22	TRANSISTOR 2SA1162
Q201	8-729-100-66	TRANSISTOR 2SC1623
Q202	8-729-100-66	TRANSISTOR 2SC1623
Q203	8-729-100-66	TRANSISTOR 2SC1623
Q204	8-729-320-17	TRANSISTOR 2SA1122CD
Q205	8-729-100-66	TRANSISTOR 2SC1623
Q206	8-729-100-66	TRANSISTOR 2SC1623
Q207	8-729-100-66	TRANSISTOR 2SC1623
Q208	8-729-320-17	TRANSISTOR 2SA1122CD
Q209	8-729-320-17	TRANSISTOR 2SA1122CD
Q210	8-729-320-17	TRANSISTOR 2SA1122CD
Q211	8-729-320-17	TRANSISTOR 2SA1122CD
Q212	8-729-100-66	TRANSISTOR 2SC1623
Q213	8-729-100-66	TRANSISTOR 2SC1623
Q214	8-729-100-66	TRANSISTOR 2SC1623
Q215	8-729-100-66	TRANSISTOR 2SC1623
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Q223	8-729-100-66	TRANSISTOR 2SC1623
Q224	8-729-100-66	TRANSISTOR 2SC1623
Q225	8-729-100-66	TRANSISTOR 2SC1623
Q226	8-729-320-17	TRANSISTOR 2SA1122CD
Q227	8-729-100-66	TRANSISTOR 2SC1623
Q228	8-729-100-66	TRANSISTOR 2SC1623
Q229	8-729-100-66	TRANSISTOR 2SC1623
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Q231	8-729-100-66	TRANSISTOR 2SC1623
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Q413	8-729-100-66	TRANSISTOR 2SC1623
Q414	8-729-100-66	TRANSISTOR 2SC1623
Q501	8-729-100-66	TRANSISTOR 2SC1623
Q502	8-729-100-66	TRANSISTOR 2SC1623
Q503	8-729-901-06	TRANSISTOR DTA144EK
Q504	8-729-100-66	TRANSISTOR 2SC1623
Q505	8-729-100-66	TRANSISTOR 2SC1623
Q506	8-729-100-66	TRANSISTOR 2SC1623
Q507	8-729-901-06	TRANSISTOR DTA144EK
Q508	8-729-100-66	TRANSISTOR 2SC1623
Q509	8-729-100-66	TRANSISTOR 2SC1623
Q510	8-729-100-66	TRANSISTOR 2SC1623
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Q515	8-729-100-66	TRANSISTOR 2SC1623
Q516	8-729-100-66	TRANSISTOR 2SC1623
Q517	8-729-901-06	TRANSISTOR DTA144EK
Q518	8-729-100-66	TRANSISTOR 2SC1623
Q519	8-729-100-66	TRANSISTOR 2SC1623
Q520	8-729-901-06	TRANSISTOR DTA144EK
Q521	8-729-901-06	TRANSISTOR DTA144EK
Q601	8-729-100-66	TRANSISTOR 2SC1623
Q602	8-729-901-01	TRANSISTOR DTC144EK
Q603	8-729-100-66	TRANSISTOR 2SC1623
Q604	8-729-100-66	TRANSISTOR 2SC1623
Q605	8-729-100-66	TRANSISTOR 2SC1623
Q606	8-729-100-66	TRANSISTOR 2SC1623
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Q608	8-729-100-66	TRANSISTOR 2SC1623
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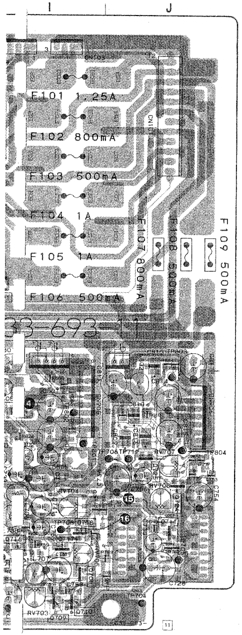
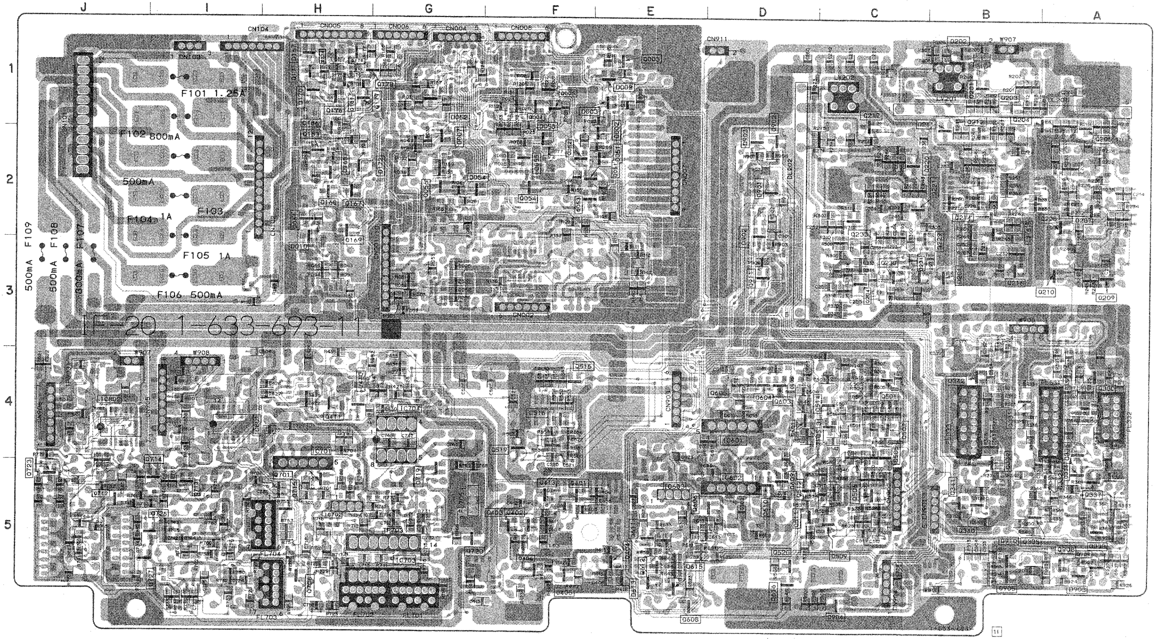
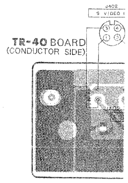
Q610	8-729-100-66	TRANSISTOR 2SC1623



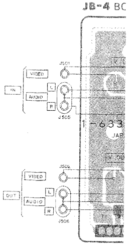
IF-20 BOARD (CONDUCTOR SIDE)



TR-40 BOARD (CONDUCTOR SIDE)



JB-4 BC



A144EK
C1 EK
A1 EK
C144EK
C144EK

A1 2
C144EK
C144EK
A1 EK
A1 EK

A1162
C1 3
C1 3
C1623
A1122CD

C 3
C1623
C1623
A 2CD
A 2CD

Q210	8-729-320-17	TRANSISTOR 2SA1122CD
Q211	8-729-320-17	TRANSISTOR 2SA1122CD
Q212	8-729-100-66	TRANSISTOR 2SC1623
Q213	8-729-100-66	TRANSISTOR 2SC1623
Q214	8-729-100-66	TRANSISTOR 2SC1623
Q215	8-729-100-66	TRANSISTOR 2SC1623
Q216	8-729-100-66	TRANSISTOR 2SC1623
Q217	8-729-100-66	TRANSISTOR 2SC1623
Q220	8-729-100-66	TRANSISTOR 2SC1623
Q221	8-729-100-66	TRANSISTOR 2SC1623
Q222	8-729-100-66	TRANSISTOR 2SC1623
Q223	8-729-100-66	TRANSISTOR 2SC1623
Q224	8-729-100-66	TRANSISTOR 2SC1623
Q225	8-729-100-66	TRANSISTOR 2SC1623
Q226	8-729-320-17	TRANSISTOR 2SA1122CD
Q227	8-729-100-66	TRANSISTOR 2SC1623
Q228	8-729-100-66	TRANSISTOR 2SC1623
Q229	8-729-100-66	TRANSISTOR 2SC1623
Q230	8-729-100-66	TRANSISTOR 2SC1623
Q231	8-729-100-66	TRANSISTOR 2SC1623
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Q234	8-729-100-66	TRANSISTOR 2SC1623
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Q331	8-729-100-66	TRANSISTOR 2SC1623
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Q333	8-729-100-66	TRANSISTOR 2SC1623
Q334	8-729-100-66	TRANSISTOR 2SC1623
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Q342	8-729-100-66	TRANSISTOR 2SC1623
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Q402	8-729-100-66	TRANSISTOR 2SC1623
Q403	8-729-100-66	TRANSISTOR 2SC1623
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Q406	8-729-100-66	TRANSISTOR 2SC1623
Q407	8-729-100-66	TRANSISTOR 2SC1623
Q408	8-729-100-66	TRANSISTOR 2SC1623
Q409	8-729-100-66	TRANSISTOR 2SC1623
Q410	8-729-100-66	TRANSISTOR 2SC1623
Q411	8-729-100-66	TRANSISTOR 2SC1623
Q412	8-729-100-66	TRANSISTOR 2SC1623
Q413	8-729-100-66	TRANSISTOR 2SC1623
Q414	8-729-100-66	TRANSISTOR 2SC1623
Q501	8-729-100-66	TRANSISTOR 2SC1623
Q502	8-729-100-66	TRANSISTOR 2SC1623
Q503	8-729-901-06	TRANSISTOR DTA144EK
Q504	8-729-100-66	TRANSISTOR 2SC1623
Q505	8-729-100-66	TRANSISTOR 2SC1623
Q506	8-729-100-66	TRANSISTOR 2SC1623
Q507	8-729-901-06	TRANSISTOR DTA144EK
Q508	8-729-100-66	TRANSISTOR 2SC1623
Q509	8-729-100-66	TRANSISTOR 2SC1623
Q510	8-729-100-66	TRANSISTOR 2SC1623
Q511	8-729-100-66	TRANSISTOR 2SC1623
Q512	8-729-100-66	TRANSISTOR 2SC1623
Q513	8-729-100-66	TRANSISTOR 2SC1623
Q514	8-729-100-66	TRANSISTOR 2SC1623
Q515	8-729-100-66	TRANSISTOR 2SC1623
Q516	8-729-100-66	TRANSISTOR 2SC1623
Q517	8-729-901-06	TRANSISTOR DTA144EK
Q518	8-729-100-66	TRANSISTOR 2SC1623
Q519	8-729-100-66	TRANSISTOR 2SC1623
Q520	8-729-901-06	TRANSISTOR DTA144EK
Q521	8-729-901-06	TRANSISTOR DTA144EK
Q601	8-729-100-66	TRANSISTOR 2SC1623
Q602	8-729-901-01	TRANSISTOR DTC144EK
Q603	8-729-100-66	TRANSISTOR 2SC1623
Q604	8-729-100-66	TRANSISTOR 2SC1623
Q605	8-729-100-66	TRANSISTOR 2SC1623
Q606	8-729-100-66	TRANSISTOR 2SC1623
Q607	8-729-100-66	TRANSISTOR 2SC1623
Q608	8-729-100-66	TRANSISTOR 2SC1623
Q609	8-729-100-66	TRANSISTOR 2SC1623
Q610	8-729-100-66	TRANSISTOR 2SC1623
Q611	8-729-100-66	TRANSISTOR 2SC1623
Q612	8-729-901-06	TRANSISTOR DTA144EK
Q613	8-729-901-01	TRANSISTOR DTC144EK
Q614	8-729-901-01	TRANSISTOR DTC144EK
Q615	8-729-901-06	TRANSISTOR DTA144EK
Q616	8-729-901-06	TRANSISTOR DTA144EK
Q701	8-729-100-66	TRANSISTOR 2SC1623
Q702	8-729-100-66	TRANSISTOR 2SC1623
Q703	8-729-202-38	TRANSISTOR 2SC3326N
Q704	8-729-100-66	TRANSISTOR 2SC1623
Q705	8-729-100-66	TRANSISTOR 2SC1623
Q706	8-729-100-66	TRANSISTOR 2SC1623
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Q716	8-729-100-66	TRANSISTOR 2SC1623
Q717	8-729-100-66	TRANSISTOR 2SC1623
Q718	8-729-100-66	TRANSISTOR 2SC1623
Q719	8-729-100-66	TRANSISTOR 2SC1623
Q720	8-729-100-66	TRANSISTOR 2SC1623
Q721	8-729-320-17	TRANSISTOR 2SA1122CD
Q722	8-729-100-66	TRANSISTOR 2SC1623
Q723	8-729-100-66	TRANSISTOR 2SC1623
Q724	8-729-100-66	TRANSISTOR 2SC1623
Q725	8-729-100-66	TRANSISTOR 2SC1623
Q726	8-729-100-66	TRANSISTOR 2SC1623
Q727	8-729-216-22	TRANSISTOR 2SA1162
Q901	8-729-901-01	TRANSISTOR DTC144EK
Q902	8-729-901-01	TRANSISTOR DTC144EK
Q903	8-729-901-01	TRANSISTOR DTC144EK
Q904	8-729-901-01	TRANSISTOR DTC144EK
Q905	8-729-901-05	TRANSISTOR DTA124EK
Q906	8-729-100-66	TRANSISTOR 2SC1623
Q907	8-729-100-66	TRANSISTOR 2SC1623
Q908	8-729-100-66	TRANSISTOR 2SC1623
Q909	8-729-100-66	TRANSISTOR 2SC1623
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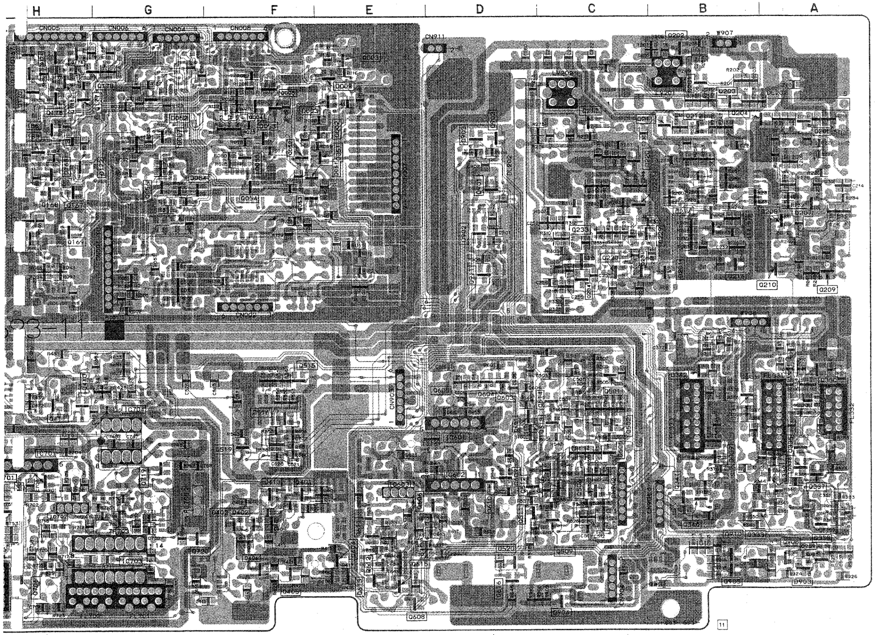
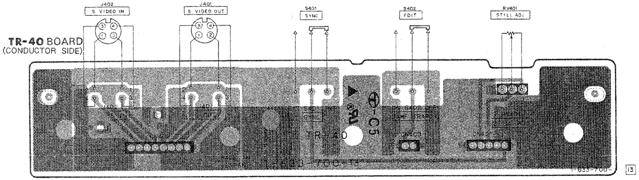
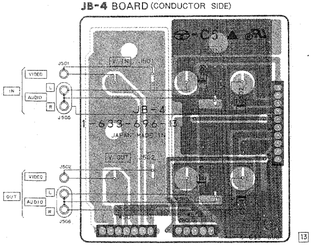
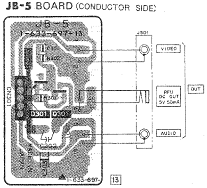
Q911	8-729-901-06	TRANSISTOR DTA144EK









* 1-633-697-11 JB-5 BOARD
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(DIODE)

D301 8-719-800-76 DIODE 1SS226

(TRANSISTOR)

Q301 8-729-216-22 TRANSISTOR 2SA1162

IF-20 (VIDEO SIGNAL SELECT, SHARPNESS, NOISE CANCEL, YX FILTER, Y/C MIX, AUDIO SIGNAL SELECT), JB-4 (VIDEO, AUDIO JACK), JB-5 (VIDEO, AUDIO, RFU DC OUT JACK), TR-40 (S VIDEO JACK EDIT, SYNC SWITCH) PRINTED WIRING BOA

— Ref. No. IF-20 BOARD: 8000 series, JB-4, JB-5, TR-40 BOARD: 3000 series —

IF-20 BOARD (COMPONENT SIDE)	
D001	F-2
D004	F-1
D060	H-2
D165	H-2
D166	H-1
D168	G-2
D169	H-1
D170	G-1
D171	G-2
D904	D-3
IC001	G-3
IC003	E-3
IC004	E-1
IC005	F-1
IC006	G-1
IC051	H-3
IC054	E-2
IC055	F-2
IC056	G-2
IC165	G-1
IC201	A-2
IC202	B-2
IC331	A-4
IC332	B-4
IC333	A-5
IC401	F-5
IC402	H-4
IC705	G-5
IC901	D-2
IC902	D-2
IC903	C-5
Q001	E-1
Q006	G-2
Q008	G-1
Q010	H-3
Q011	H-2
Q057	G-2
Q060	H-3
Q166	H-2
Q179	H-1
Q180	H-1
Q182	H-2
Q184	H-2
Q188	G-1
Q191	I-3
Q206	A-1
Q213	B-2
Q222	B-3
Q223	C-2
Q224	B-3
Q225	B-3
Q226	B-3
Q227	C-3
Q228	C-3
Q334	A-5
Q407	G-4
Q408	G-4
Q409	G-4
Q412	H-4
Q414	G-4
Q503	C-4
Q504	C-4
Q507	C-5
Q508	C-5
Q510	C-5
Q517	F-4
Q518	F-5
Q521	C-5
Q607	E-5
Q614	E-5
Q702	H-5
Q703	H-5
Q704	H-5
Q705	H-5
Q707	I-5
Q708	I-5
Q709	I-5
Q710	I-5
Q711	J-5
Q716	I-5
Q717	I-5
Q718	I-5
Q721	J-5
Q722	G-5
Q724	J-5
Q725	J-5
Q901	D-3
Q906	A-5
Q907	A-5

IF-20 BOARD (CONDUCTOR SIDE)	
D002	E-1
D003	F-1
D010	H-3
D051	E-2
D052	G-1
D053	F-1
D054	G-2
D167	H-1
D201	B-3
D901	D-2
D902	D-2
D903	A-5
IC601	D-4
IC602	D-5
IC603	E-5
IC701	H-4
IC702	H-5
IC703	G-5
IC704	G-4
IC801	I-4
IC802	J-4
Q002	E-2
Q003	E-1
Q004	F-1
Q005	F-1
Q007	G-2
Q051	E-2
Q052	F-2
Q053	F-2
Q054	F-2
Q055	F-2
Q056	G-2
Q061	H-2
Q165	H-2
Q167	H-2
Q168	H-2
Q169	H-3
Q170	H-1
Q171	H-1
Q172	G-2
Q174	H-1
Q175	H-1
Q176	H-1
Q177	G-1
Q178	G-1
Q181	H-1
Q183	H-2
Q186	H-1
Q201	B-1
Q202	B-1
Q203	B-1
Q204	B-1
Q205	A-2
Q207	A-2
Q208	A-2
Q209	A-3
Q210	A-3
Q211	C-1
Q212	B-1
Q214	B-2
Q215	B-2
Q216	B-3
Q217	C-1
Q220	C-2
Q221	B-2
Q229	B-2
Q230	C-3
Q231	C-3
Q233	C-2
Q234	C-3
Q330	A-4
Q331	B-4
Q332	A-5
Q333	B-5
Q335	A-4
Q336	A-5
Q337	A-5
Q338	A-5
Q339	B-4
Q340	B-5
Q341	B-5
Q342	B-4
Q401	F-5
Q402	F-5
Q403	F-5
Q404	E-5
Q405	F-5
Q406	F-5
Q410	H-4
Q411	H-4
Q413	F-5
Q501	C-4
Q502	C-4
Q505	C-4
Q506	C-5
Q509	C-5
Q511	D-5
Q512	D-5
Q513	C-4
Q514	D-4
Q515	F-4
Q516	F-4
Q519	F-4
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Q602	D-4
Q603	D-4
Q604	D-4
Q605	D-4
Q606	E-5
Q608	E-5
Q609	D-5
Q610	D-5
Q611	E-5
Q612	E-5
Q613	E-5
Q615	E-5
Q616	D-5
Q701	H-5
Q706	H-5
Q712	J-5
Q713	I-5
Q714	I-5
Q715	H-5
Q719	G-5
Q720	G-5
Q723	J-5
Q726	I-5
Q727	I-5
Q902	D-1
Q903	D-2
Q904	C-5
Q905	B-5
Q908	A-5
Q909	A-5
Q910	B-5
Q911	D-3

* A-7062-009-A IF-20 BOARD, COMPLETE
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〈 DIODE 〉

D001	8-719-104-34	DIODE 1S2836
D002	8-719-104-34	DIODE 1S2836
D003	8-719-104-34	DIODE 1S2836
D004	8-719-104-34	DIODE 1S2836
D010	8-719-800-76	DIODE 1SS226
D051	8-719-104-34	DIODE 1S2836
D052	8-719-104-34	DIODE 1S2836
D053	8-719-104-34	DIODE 1S2836
D054	8-719-104-34	DIODE 1S2836
D060	8-719-800-76	DIODE 1SS226
D165	8-719-400-18	DIODE MA152WK
D166	8-719-400-18	DIODE MA152WK
D167	8-719-800-76	DIODE 1SS226
D168	8-719-800-76	DIODE 1SS226
D169	8-719-800-76	DIODE 1SS226
D170	8-719-800-76	DIODE 1SS226
D171	8-719-104-34	DIODE 1S2836
D201	8-719-800-76	DIODE 1SS226
D901	8-719-400-18	DIODE MA152WK
D902	8-719-400-18	DIODE MA152WK
D903	8-719-104-34	DIODE 1S2836
D904	8-719-400-18	DIODE MA152WK

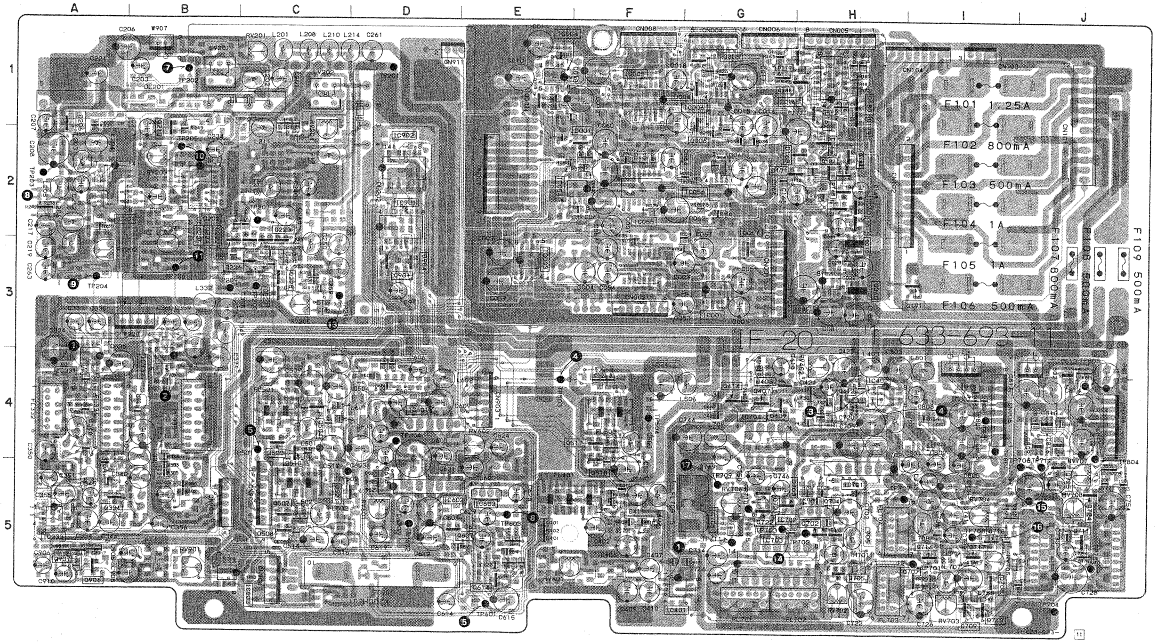
〈 IC 〉

IC001	8-759-981-92	IC RC4558M
IC003	8-759-981-92	IC RC4558M
IC004	8-759-981-92	IC RC4558M
IC005	8-759-932-64	IC BU4052BF
IC006	8-759-981-92	IC RC4558M
IC051	8-759-981-92	IC RC4558M
IC054	8-759-981-92	IC RC4558M
IC055	8-759-932-64	IC BU4052BF
IC056	8-759-981-92	IC RC4558M
IC165	8-759-200-67	IC TC4001BF
IC201	8-759-030-55	IC MC1496MR
IC202	8-759-030-55	IC MC1496MR
IC331	8-759-710-62	IC NJM2246M
IC332	8-759-710-62	IC NJM2246M
IC333	8-759-710-09	IC NJM2233AM
IC401	8-759-711-71	IC NJM2234M
IC402	8-759-711-71	IC NJM2234M
IC601	8-759-200-60	IC TA7060AP
IC602	8-759-200-60	IC TA7060AP
IC603	8-759-400-06	IC AN608P
IC701	8-759-200-60	IC TA7060AP
IC702	8-759-402-33	IC AN607P
IC703	8-752-201-30	IC CX22013
IC704	8-759-969-13	IC SN16913P
IC705	8-759-101-12	IC uPC311G2
IC801	8-752-009-51	IC CX20095A
IC802	8-752-009-51	IC CX20095A
IC901	8-759-009-10	IC MC14069UBF
IC902	8-759-009-10	IC MC14069UBF
IC903	8-759-100-93	IC uPC393G2

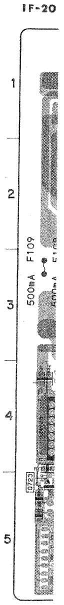
〈 TRANSISTOR 〉

Q001	8-729-202-38	TRANSISTOR 2SC3326N
Q002	8-729-202-38	TRANSISTOR 2SC3326N
Q003	8-729-202-38	TRANSISTOR 2SC3326N
Q004	8-729-202-38	TRANSISTOR 2SC3326N
Q005	8-729-202-38	TRANSISTOR 2SC3326N
Q006	8-729-202-38	TRANSISTOR 2SC3326N
Q007	8-729-202-38	TRANSISTOR 2SC3326N
Q008	8-729-202-38	TRANSISTOR 2SC3326N
Q010	8-729-140-75	TRANSISTOR 2SD999
Q011	8-729-901-06	TRANSISTOR DTA144EK
Q051	8-729-202-38	TRANSISTOR 2SC3326N
Q052	8-729-202-38	TRANSISTOR 2SC3326N
Q053	8-729-202-38	TRANSISTOR 2SC3326N
Q054	8-729-202-38	TRANSISTOR 2SC3326N
Q055	8-729-202-38	TRANSISTOR 2SC3326N
Q056	8-729-202-38	TRANSISTOR 2S
Q057	8-729-202-38	TRANSISTOR 2S
Q060	8-729-101-07	TRANSISTOR 2S
Q061	8-729-901-01	TRANSISTOR DT
Q165	8-729-901-06	TRANSISTOR DT
Q166	8-729-901-01	TRANSISTOR DT
Q167	8-729-100-66	TRANSISTOR 2S
Q168	8-729-901-06	TRANSISTOR DT
Q169	8-729-901-06	TRANSISTOR DT
Q170	8-729-901-06	TRANSISTOR DT
Q171	8-729-901-06	TRANSISTOR DT
Q172	8-729-100-66	TRANSISTOR 2S
Q174	8-729-901-06	TRANSISTOR DT
Q175	8-729-901-06	TRANSISTOR DT
Q176	8-729-901-06	TRANSISTOR DT

IF-20 BOARD (COMPONENT SIDE)



IF-20



VIᐩEO JACK EDIT, SYNC SWITCH) PRINTED WIRING BOARDS

(TRANSISTOR)

	2(38	TRANSISTOR 2SC3326N
	2(38	TRANSISTOR 2SC3326N
	202-38	TRANSISTOR 2SC3326N
	20?-38	TRANSISTOR 2SC3326N
	2(38	TRANSISTOR 2SC3326N
	202-38	TRANSISTOR 2SC3326N
	20?-38	TRANSISTOR 2SC3326N
	2(38	TRANSISTOR 2SC3326N
	1⁄ 75	TRANSISTOR 2SD999
	901-06	TRANSISTOR DTA144EK
	2(38	TRANSISTOR 2SC3326N
	2(38	TRANSISTOR 2SC3326N
	202-38	TRANSISTOR 2SC3326N
	20?-38	TRANSISTOR 2SC3326N
	2(38	TRANSISTOR 2SC3326N
Q056	8-729-202-38	TRANSISTOR 2SC3326N
Q057	8-729-202-38	TRANSISTOR 2SC3326N
Q060	8-729-101-07	TRANSISTOR 2SB798
Q061	8-729-901-01	TRANSISTOR DTC144EK
Q165	8-729-901-06	TRANSISTOR DTA144EK
Q166	8-729-901-01	TRANSISTOR DTC144EK
Q167	8-729-100-66	TRANSISTOR 2SC1623
Q168	8-729-901-06	TRANSISTOR DTA144EK
Q169	8-729-901-06	TRANSISTOR DTA144EK
Q170	8-729-901-06	TRANSISTOR DTA144EK
Q171	8-729-901-06	TRANSISTOR DTA144EK
Q172	8-729-100-66	TRANSISTOR 2SC1623
Q174	8-729-901-06	TRANSISTOR DTA144EK
Q175	8-729-901-06	TRANSISTOR DTA144EK
Q176	8-729-901-06	TRANSISTOR DTA144EK
Q177	8-729-901-06	TRANSISTOR DTA144EK
Q178	8-729-901-01	TRANSISTOR DTC144EK
Q179	8-729-901-06	TRANSISTOR DTA144EK
Q180	8-729-901-01	TRANSISTOR DTC144EK
Q181	8-729-901-01	TRANSISTOR DTC144EK
Q182	8-729-216-22	TRANSISTOR 2SA1162
Q183	8-729-901-01	TRANSISTOR DTC144EK
Q184	8-729-901-01	TRANSISTOR DTC144EK
Q186	8-729-901-06	TRANSISTOR DTA144EK
Q188	8-729-901-06	TRANSISTOR DTA144EK
Q191	8-729-216-22	TRANSISTOR 2SA1162
Q201	8-729-100-66	TRANSISTOR 2SC1623
Q202	8-729-100-66	TRANSISTOR 2SC1623
Q203	8-729-100-66	TRANSISTOR 2SC1623
Q204	8-729-320-17	TRANSISTOR 2SA1122CD
Q205	8-729-100-66	TRANSISTOR 2SC1623
Q206	8-729-100-66	TRANSISTOR 2SC1623
Q207	8-729-100-66	TRANSISTOR 2SC1623
Q208	8-729-320-17	TRANSISTOR 2SA1122CD
Q209	8-729-320-17	TRANSISTOR 2SA1122CD
Q210	8-729-320-17	TRANSISTOR 2SA1122CD
Q211	8-729-320-17	TRANSISTOR 2SA1122CD
Q212	8-729-100-66	TRANSISTOR 2SC1623
Q213	8-729-100-66	TRANSISTOR 2SC1623
Q214	8-729-100-66	TRANSISTOR 2SC1623
Q215	8-729-100-66	TRANSISTOR 2SC1623
Q216	8-729-100-66	TRANSISTOR 2SC1623
Q217	8-729-100-66	TRANSISTOR 2SC1623
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Q221	8-729-100-66	TRANSISTOR 2SC1623
Q222	8-729-100-66	TRANSISTOR 2SC1623
Q223	8-729-100-66	TRANSISTOR 2SC1623
Q224	8-729-100-66	TRANSISTOR 2SC1623
Q225	8-729-100-66	TRANSISTOR 2SC1623
Q226	8-729-320-17	TRANSISTOR 2SA1122CD
Q227	8-729-100-66	TRANSISTOR 2SC1623
Q228	8-729-100-66	TRANSISTOR 2SC1623
Q229	8-729-100-66	TRANSISTOR 2SC1623
Q230	8-729-100-66	TRANSISTOR 2SC1623
Q231	8-729-100-66	TRANSISTOR 2SC1623
Q233	8-729-100-66	TRANSISTOR 2SC1623
Q234	8-729-100-66	TRANSISTOR 2SC1623
Q330	8-729-100-66	TRANSISTOR 2SC1623
Q331	8-729-100-66	TRANSISTOR 2SC1623
Q332	8-729-100-66	TRANSISTOR 2SC1623
Q333	8-729-100-66	TRANSISTOR 2SC1623
Q334	8-729-100-66	TRANSISTOR 2SC1623
Q335	8-729-100-66	TRANSISTOR 2SC1623
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Q338	8-729-100-66	TRANSISTOR 2SC1623
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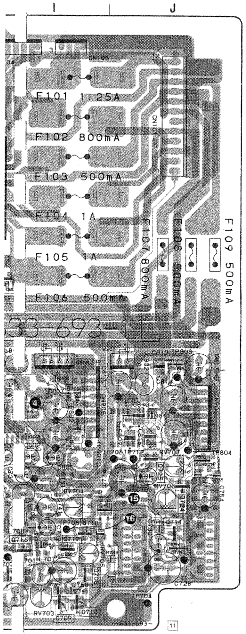
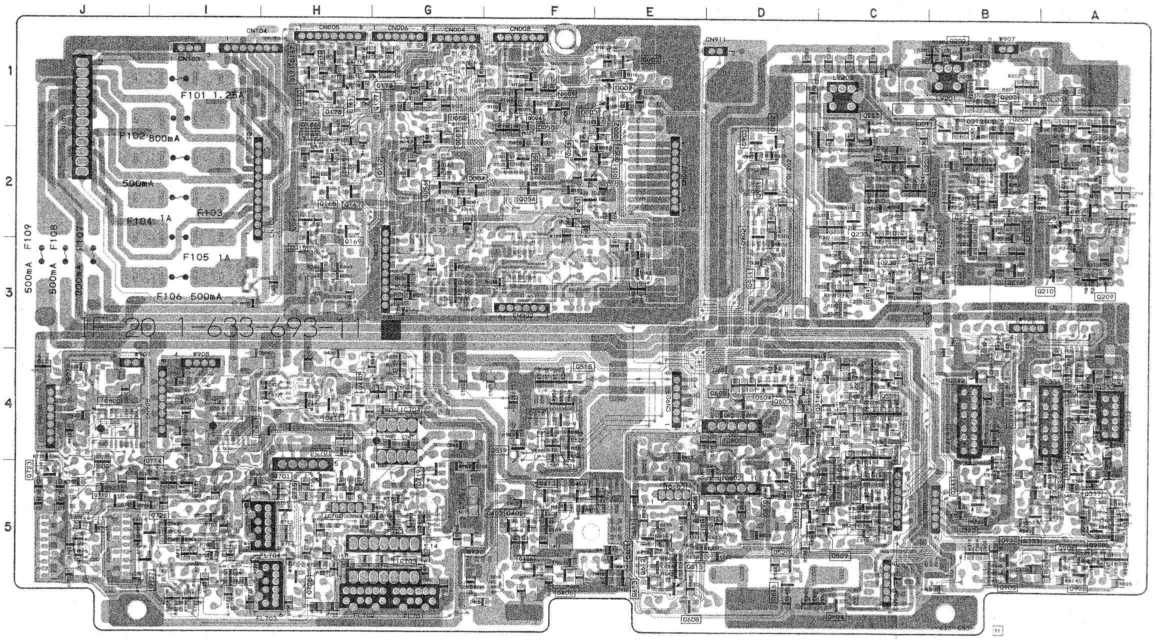
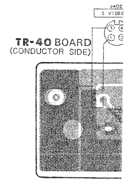
Q341	8-729-100-66	TRANSISTOR 2SC1623
Q342	8-729-100-66	TRANSISTOR 2SC1623
Q401	8-729-100-66	TRANSISTOR 2SC1623
Q402	8-729-100-66	TRANSISTOR 2SC1623
Q403	8-729-100-66	TRANSISTOR 2SC1623
Q404	8-729-100-66	TRANSISTOR 2SC1623
Q405	8-729-100-66	TRANSISTOR 2SC1623
Q406	8-729-100-66	TRANSISTOR 2SC1623
Q407	8-729-100-66	TRANSISTOR 2SC1623
Q408	8-729-100-66	TRANSISTOR 2SC1623
Q409	8-729-100-66	TRANSISTOR 2SC1623
Q410	8-729-100-66	TRANSISTOR 2SC1623
Q411	8-729-100-66	TRANSISTOR 2SC1623
Q412	8-729-100-66	TRANSISTOR 2SC1623
Q413	8-729-100-66	TRANSISTOR 2SC1623
Q414	8-729-100-66	TRANSISTOR 2SC1623
Q501	8-729-100-66	TRANSISTOR 2SC1623
Q502	8-729-100-66	TRANSISTOR 2SC1623
Q503	8-729-901-06	TRANSISTOR DTA144EK
Q504	8-729-100-66	TRANSISTOR 2SC1623
Q505	8-729-100-66	TRANSISTOR 2SC1623
Q506	8-729-100-66	TRANSISTOR 2SC1623
Q507	8-729-901-06	TRANSISTOR DTA144EK
Q508	8-729-100-66	TRANSISTOR 2SC1623
Q509	8-729-100-66	TRANSISTOR 2SC1623
Q510	8-729-100-66	TRANSISTOR 2SC1623
Q511	8-729-100-66	TRANSISTOR 2SC1623
Q512	8-729-100-66	TRANSISTOR 2SC1623
Q513	8-729-100-66	TRANSISTOR 2SC1623
Q514	8-729-100-66	TRANSISTOR 2SC1623
Q515	8-729-100-66	TRANSISTOR 2SC1623
Q516	8-729-100-66	TRANSISTOR 2SC1623
Q517	8-729-901-06	TRANSISTOR DTA144EK
Q518	8-729-100-66	TRANSISTOR 2SC1623
Q519	8-729-100-66	TRANSISTOR 2SC1623
Q520	8-729-901-06	TRANSISTOR DTA144EK
Q521	8-729-901-06	TRANSISTOR DTA144EK
Q601	8-729-100-66	TRANSISTOR 2SC1623
Q602	8-729-901-01	TRANSISTOR DTC144EK
Q603	8-729-100-66	TRANSISTOR 2SC1623
Q604	8-729-100-66	TRANSISTOR 2SC1623
Q605	8-729-100-66	TRANSISTOR 2SC1623
Q606	8-729-100-66	TRANSISTOR 2SC1623
Q607	8-729-100-66	TRANSISTOR 2SC1623
Q608	8-729-100-66	TRANSISTOR 2SC1623
Q609	8-729-100-66	TRANSISTOR 2SC1623
Q610	8-729-100-66	TRANSISTOR 2SC1623



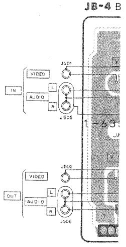
IF-20 BOARD (CONDUCTOR SIDE)



TR-40 BOARD (CONDUCTOR SIDE)



JB-4 B



Q210	8-729-320-17	TRANSISTOR 2SA1122CD
Q211	8-729-320-17	TRANSISTOR 2SA1122CD
Q212	8-729-100-66	TRANSISTOR 2SC1623
Q213	8-729-100-66	TRANSISTOR 2SC1623
Q214	8-729-100-66	TRANSISTOR 2SC1623
Q215	8-729-100-66	TRANSISTOR 2SC1623
Q216	8-729-100-66	TRANSISTOR 2SC1623
Q217	8-729-100-66	TRANSISTOR 2SC1623
Q220	8-729-100-66	TRANSISTOR 2SC1623
Q221	8-729-100-66	TRANSISTOR 2SC1623
Q222	8-729-100-66	TRANSISTOR 2SC1623
Q223	8-729-100-66	TRANSISTOR 2SC1623
Q224	8-729-100-66	TRANSISTOR 2SC1623
Q225	8-729-100-66	TRANSISTOR 2SC1623
Q226	8-729-320-17	TRANSISTOR 2SA1122CD
Q227	8-729-100-66	TRANSISTOR 2SC1623
Q228	8-729-100-66	TRANSISTOR 2SC1623
Q229	8-729-100-66	TRANSISTOR 2SC1623
Q230	8-729-100-66	TRANSISTOR 2SC1623
Q231	8-729-100-66	TRANSISTOR 2SC1623
Q233	8-729-100-66	TRANSISTOR 2SC1623
Q234	8-729-100-66	TRANSISTOR 2SC1623
Q330	8-729-100-66	TRANSISTOR 2SC1623
Q331	8-729-100-66	TRANSISTOR 2SC1623
Q332	8-729-100-66	TRANSISTOR 2SC1623
Q333	8-729-100-66	TRANSISTOR 2SC1623
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Q335	8-729-100-66	TRANSISTOR 2SC1623
Q336	8-729-100-66	TRANSISTOR 2SC1623
Q337	8-729-100-66	TRANSISTOR 2SC1623
Q338	8-729-100-66	TRANSISTOR 2SC1623
Q339	8-729-100-66	TRANSISTOR 2SC1623
Q340	8-729-100-66	TRANSISTOR 2SC1623
Q341	8-729-100-66	TRANSISTOR 2SC1623
Q342	8-729-100-66	TRANSISTOR 2SC1623
Q401	8-729-100-66	TRANSISTOR 2SC1623
Q402	8-729-100-66	TRANSISTOR 2SC1623
Q403	8-729-100-66	TRANSISTOR 2SC1623
Q404	8-729-100-66	TRANSISTOR 2SC1623
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Q407	8-729-100-66	TRANSISTOR 2SC1623
Q408	8-729-100-66	TRANSISTOR 2SC1623
Q409	8-729-100-66	TRANSISTOR 2SC1623
Q410	8-729-100-66	TRANSISTOR 2SC1623
Q411	8-729-100-66	TRANSISTOR 2SC1623
Q412	8-729-100-66	TRANSISTOR 2SC1623
Q413	8-729-100-66	TRANSISTOR 2SC1623
Q414	8-729-100-66	TRANSISTOR 2SC1623
Q501	8-729-100-66	TRANSISTOR 2SC1623
Q502	8-729-100-66	TRANSISTOR 2SC1623
Q503	8-729-901-06	TRANSISTOR DTA144EK
Q504	8-729-100-66	TRANSISTOR 2SC1623
Q505	8-729-100-66	TRANSISTOR 2SC1623
Q506	8-729-100-66	TRANSISTOR 2SC1623
Q507	8-729-901-06	TRANSISTOR DTA144EK
Q508	8-729-100-66	TRANSISTOR 2SC1623
Q509	8-729-100-66	TRANSISTOR 2SC1623
Q510	8-729-100-66	TRANSISTOR 2SC1623
Q511	8-729-100-66	TRANSISTOR 2SC1623
Q512	8-729-100-66	TRANSISTOR 2SC1623
Q513	8-729-100-66	TRANSISTOR 2SC1623
Q514	8-729-100-66	TRANSISTOR 2SC1623
Q515	8-729-100-66	TRANSISTOR 2SC1623
Q516	8-729-100-66	TRANSISTOR 2SC1623
Q517	8-729-901-06	TRANSISTOR DTA144EK
Q518	8-729-100-66	TRANSISTOR 2SC1623
Q519	8-729-100-66	TRANSISTOR 2SC1623
Q520	8-729-901-06	TRANSISTOR DTA144EK
Q521	8-729-901-06	TRANSISTOR DTA144EK
Q601	8-729-100-66	TRANSISTOR 2SC1623
Q602	8-729-901-01	TRANSISTOR DTC144EK
Q603	8-729-100-66	TRANSISTOR 2SC1623
Q604	8-729-100-66	TRANSISTOR 2SC1623
Q605	8-729-100-66	TRANSISTOR 2SC1623
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Q611	8-729-100-66	TRANSISTOR 2SC1623
Q612	8-729-901-06	TRANSISTOR DTA144EK
Q613	8-729-901-01	TRANSISTOR DTC144EK
Q614	8-729-901-01	TRANSISTOR DTC144EK
Q615	8-729-901-06	TRANSISTOR DTA144EK
Q616	8-729-901-06	TRANSISTOR DTA144EK
Q701	8-729-100-66	TRANSISTOR 2SC1623
Q702	8-729-100-66	TRANSISTOR 2SC1623
Q703	8-729-202-38	TRANSISTOR 2SC3326N
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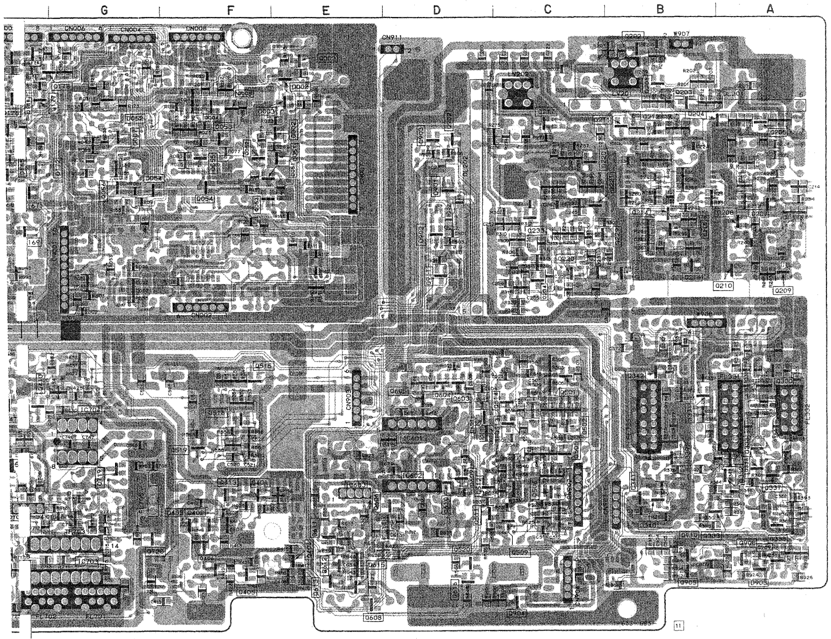
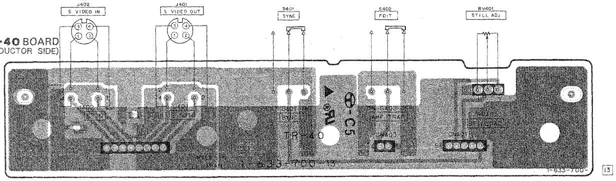
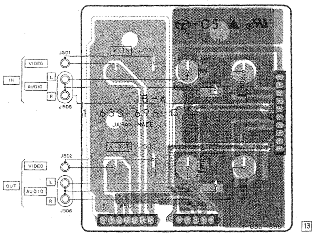
Q707	8-729-100-66	TRANSISTOR 2SC1623
Q708	8-729-100-66	TRANSISTOR 2SC1623
Q709	8-729-100-66	TRANSISTOR 2SC1623
Q710	8-729-100-66	TRANSISTOR 2SC1623
Q711	8-729-100-66	TRANSISTOR 2SC1623
Q712	8-729-100-66	TRANSISTOR 2SC1623
Q713	8-729-100-66	TRANSISTOR 2SC1623
Q714	8-729-100-66	TRANSISTOR 2SC1623
Q715	8-729-100-66	TRANSISTOR 2SC1623
Q716	8-729-100-66	TRANSISTOR 2SC1623
Q717	8-729-100-66	TRANSISTOR 2SC1623
Q718	8-729-100-66	TRANSISTOR 2SC1623
Q719	8-729-100-66	TRANSISTOR 2SC1623
Q720	8-729-100-66	TRANSISTOR 2SC1623
Q721	8-729-320-17	TRANSISTOR 2SA1122CD
Q722	8-729-100-66	TRANSISTOR 2SC1623
Q723	8-729-100-66	TRANSISTOR 2SC1623
Q724	8-729-100-66	TRANSISTOR 2SC1623
Q725	8-729-100-66	TRANSISTOR 2SC1623
Q726	8-729-100-66	TRANSISTOR 2SC1623
Q727	8-729-216-22	TRANSISTOR 2SA1162
Q901	8-729-901-01	TRANSISTOR DTC144EK
Q902	8-729-901-01	TRANSISTOR DTC144EK
Q903	8-729-901-01	TRANSISTOR DTC144EK
Q904	8-729-901-01	TRANSISTOR DTC144EK
Q905	8-729-901-05	TRANSISTOR DTA124EK
Q906	8-729-100-66	TRANSISTOR 2SC1623
Q907	8-729-100-66	TRANSISTOR 2SC1623
Q908	8-729-100-66	TRANSISTOR 2SC1623
Q909	8-729-100-66	TRANSISTOR 2SC1623
Q910	8-729-100-66	TRANSISTOR 2SC1623
Q911	8-729-901-06	TRANSISTOR DTA144EK



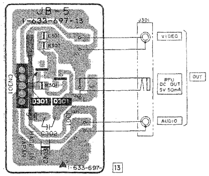
TR-40 BOARD
(CONDUCTOR SIDE)



JB-4 BOARD (CONDUCTOR SIDE)



JB-5 BOARD (CONDUCTOR SIDE)



* 1-633-697-11 JB-5 BOARD
****

(DIODE)

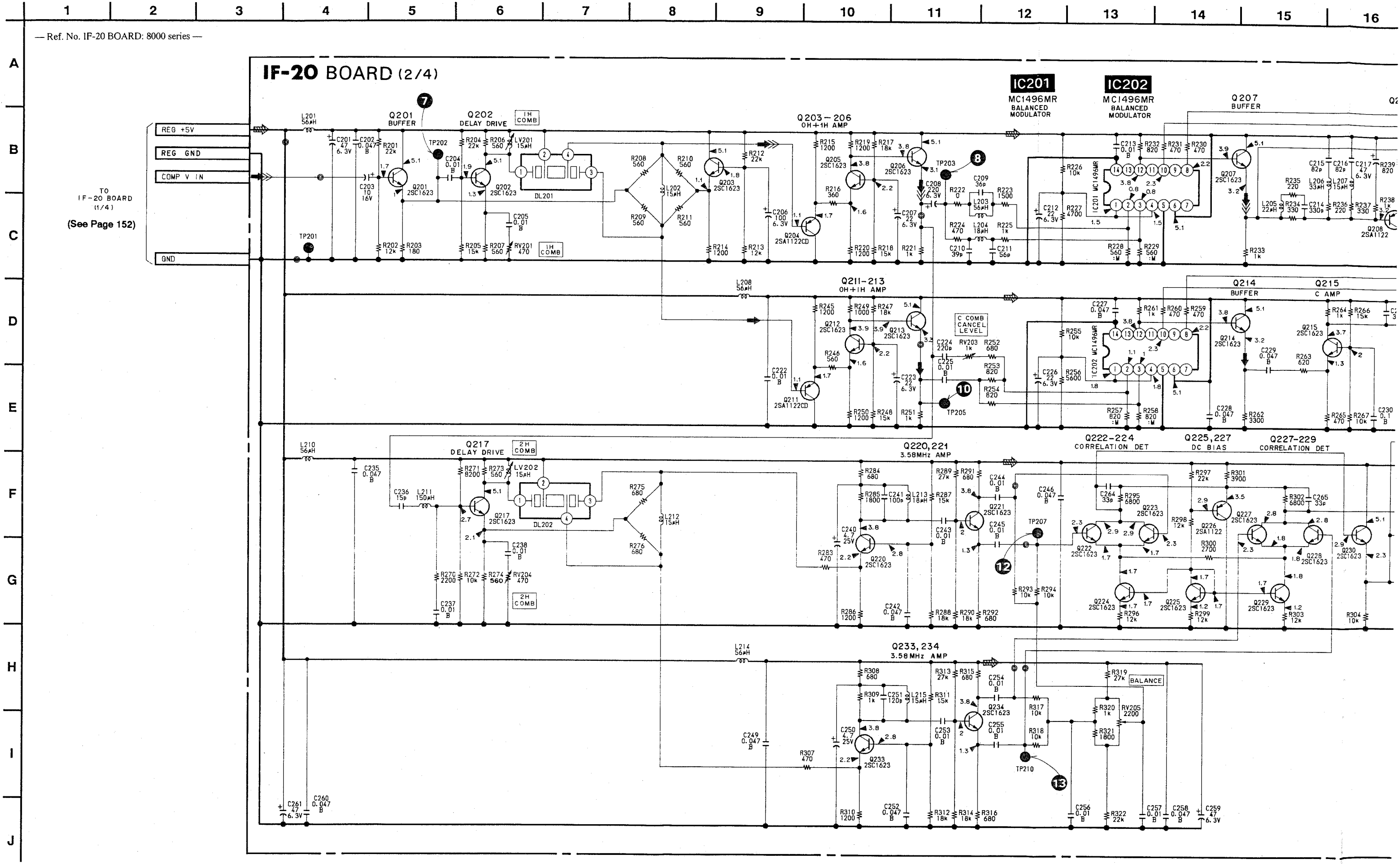
D301 8-719-800-76 DIODE 1SS226

(TRANSISTOR)

Q301 8-729-216-22 TRANSISTOR 2SA1162

IF-20 (YX FILTER) SCHEMATIC DIAGRAM

— Ref. No. IF-20 BOARD: 8000 series —


1
2
3
4
5
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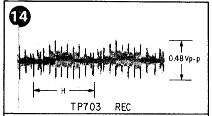
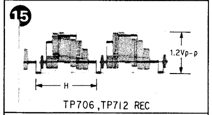
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
IF-20 BOARD (2/4)
REG +5V
REG GND
COMP V IN
GND
TO IF-20 BOARD (1/4)
(See Page 152)
IC201
MC1496MR
BALANCED MODULATOR
IC202
MC1496MR
BALANCED MODULATOR
Q201 BUFFER
Q202 DELAY DRIVE
1H COMB
Q203-206 OH+1H AMP
Q207 BUFFER
Q208 2SA1122
Q211-213 OH+1H AMP
Q214 BUFFER
Q215 C AMP
C COMB CANCEL LEVEL
Q217 DELAY DRIVE
2H COMB
Q220,221 3.58MHz AMP
Q222-224 CORRELATION DET
Q225,227 DC BIAS
Q227-229 CORRELATION DET
Q233,234 3.58MHz AMP
BALANCE
DL201
DL202
TP201
TP202
TP203
TP205
TP207
TP210
⑦
⑧
⑩
⑫
⑬
L201 56μH
L202 15μH
L203 56μH
L204 18μH
L205 22μH
L206 33μH
L207 15μH
L208 56μH
L210 56μH
L211 150μH
L212 15μH
L213 18μH
L214 56μH
L215 15μH
LV201 15μH
LV202 15μH
RV201 470
RV203 1k
RV204 470
RV205 2200
Q201 2SC1623
Q202 2SC1623
Q203 2SC1623
Q204 2SA1122CD
Q205 2SC1623
Q206 2SC1623
Q207 2SC1623
Q211 2SA1122CD
Q212 2SC1623
Q213 2SC1623
Q214 2SC1623
Q215 2SC1623
Q217 2SC1623
Q220 2SC1623
Q221 2SC1623
Q222 2SC1623
Q223 2SC1623
Q224 2SC1623
Q225 2SC1623
Q226 2SA1122
Q227 2SC1623
Q228 2SC1623
Q229 2SC1623
Q230 2SC1623
Q233 2SC1623
Q234 2SC1623

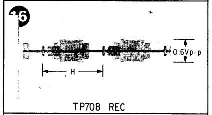
I -20 BOARD (3/4)



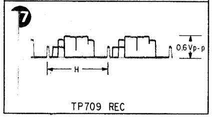
TP703 REC



TP706, TP712 REC

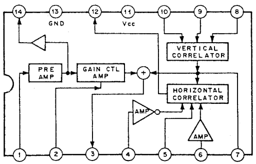


TP708 REC

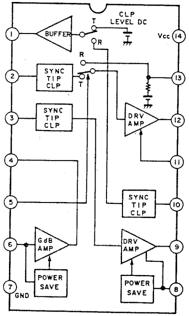


TP709 REC

IC703 (CX22013)

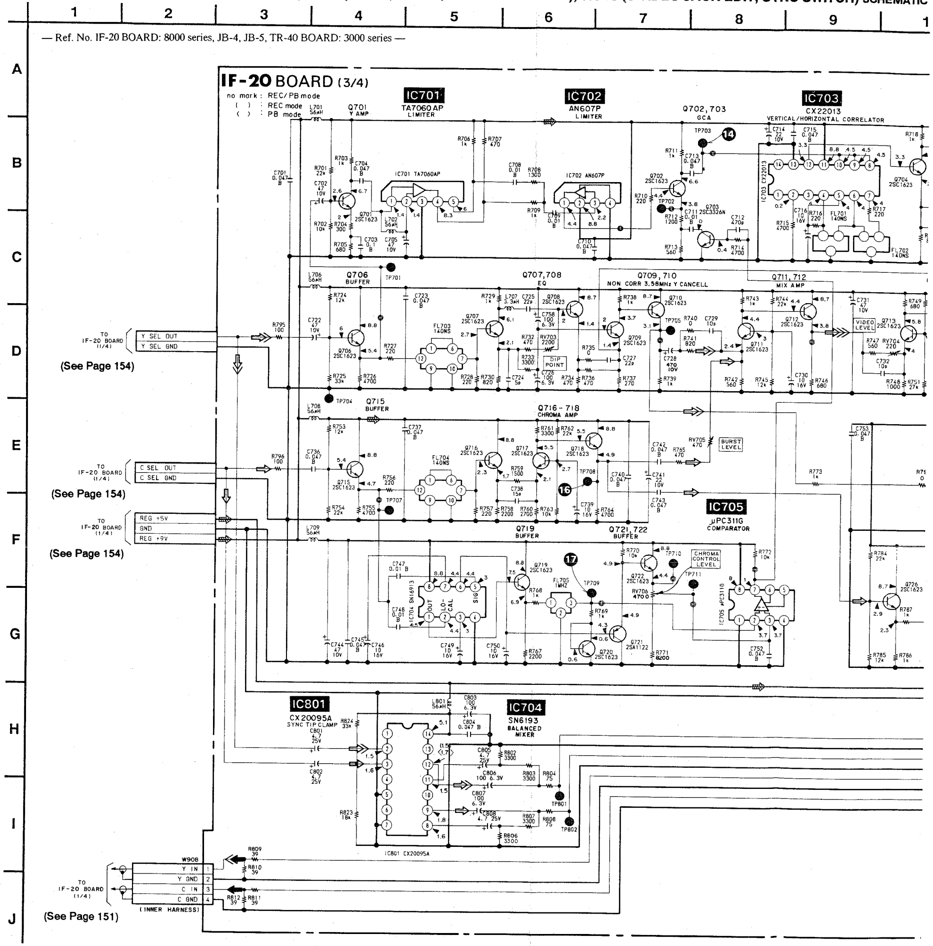

GND
Vcc
VERTICAL CORRELATOR
PRE AMP
GAIN CTL AMP
HORIZONTAL CORRELATOR
AMP
AMP
1
2
3
4
5
6
7
8
9
10
11
12
13
14

IC801, IC802 (CX20095A)


BUFFER
CLP LEVEL DC
T
R
Vcc
SYNC TIP CLP
SYNC TIP CLP
DRV AMP
SYNC TIP CLP
6dB AMP
DRV AMP
POWER SAVE
POWER SAVE
GND
1
2
3
4
5
6
7
8
9
10
11
12
13
14

IF-20 (Y/C MIX), JB-4 (VIDEO, AUDIO JACK), JB-5 (VIDEO, AUDIO, RFU DC OUT JACK), TR-40 (S VIDEO JACK EDIT, SYNC SWITCH) SCHEMATIC

— Ref. No. IF-20 BOARD: 8000 series, JB-4, JB-5, TR-40 BOARD: 3000 series —


1
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3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
J
IF-20 BOARD (3/4)
no mark : REC/PB mode
( ) : REC mode
〈 〉 : PB mode
IC701 TA7060AP LIMITER
IC702 AN607P LIMITER
IC703 CX22013 VERTICAL/HORIZONTAL CORRELATOR
Q701 Y AMP
Q702, 703 GCA
Q706 BUFFER
Q707, 708 EQ
Q709, 710 NON CORR 3.58MHz Y CANCELL
Q711, 712 MIX AMP
Q715 BUFFER
Q716 - 718 CHROMA AMP
Q719 BUFFER
Q721, 722 BUFFER
IC705 μPC311G COMPARATOR
IC704 SN6193 BALANCED MIXER
IC801 CX20095A SYNC TIP CLAMP
TO IF-20 BOARD (1/4)
Y SEL OUT
Y SEL GND
(See Page 154)
C SEL OUT
C SEL GND
(See Page 154)
REG +5V
GND
REG +9V
(See Page 154)
W908
Y IN
Y GND
C IN
C GND
(INNER HARNESS)
TO IF-20 BOARD (1/4)
(See Page 151)
TP701
TP702
TP703
TP704
TP705
TP707
TP708
TP709
TP710
TP711
TP801
TP802
VIDEO LEVEL
BURST LEVEL
CHROMA CONTROL LEVEL
DIP POINT
FL701 140NS
FL702 140NS
FL703 140NS
FL704 140NS
FL705 1MHZ

VIDEO, AUDIO IN/OUT VIDEO, AUDIO IN/OUT

IF-20 (VIDEO SIGNAL SELECT, SHARPNESS, NOISE CANCEL, YX FILTER, Y/C MIX, AUDIO SIGNAL SELECT), JB-4 (VIDEO, AUDIO JACK), JB-5 (VIDEO, AUDIO, RFU DC OUT JACK), TR-40 (S VIDEO JACK EDIT, SYNC SWITCH) PRINTED WIRING

— Ref. No. IF-20 BOARD: 8000 series, JB-4, JB-5, TR-40 BOARD: 3000 series —

IF-20 BOARD (COMPONENT SIDE)

D001	F-2
D004	F-1
D060	H-2
D165	H-2
D166	H-1
D168	G-2
D169	H-1
D170	G-1
D171	G-2
D904	D-3
IC001	G-3
IC003	E-3
IC004	E-1
IC005	F-1
IC006	G-1
IC051	H-3
IC054	E-2
IC055	F-2
IC056	G-2
IC165	G-1
IC201	A-2
IC202	B-2
IC331	A-4
IC332	B-4
IC333	A-5
IC401	F-5
IC402	H-4
IC705	G-5
IC901	D-2
IC902	D-2
IC903	C-5
Q001	E-1
Q006	G-2
Q008	G-1
Q010	H-3
Q011	H-2
Q057	G-2
Q060	H-3
Q166	H-2
Q179	H-1
Q180	H-1
Q182	H-2
Q184	H-2
Q188	G-1
Q191	I-3
Q206	A-1
Q213	B-2
Q222	B-3
Q223	C-2
Q224	B-3
Q225	B-3
Q226	B-3
Q227	C-3
Q228	C-3
Q334	A-5
Q407	G-4
Q408	G-4
Q409	G-4
Q412	H-4
Q414	G-4
Q503	C-4
Q504	C-4
Q507	C-5
Q508	C-5
Q510	C-5
Q517	F-4
Q518	F-5
Q521	C-5
Q607	E-5
Q614	E-5
Q702	H-5
Q703	H-5
Q704	H-5
Q705	H-5
Q707	I-5
Q708	I-5
Q709	I-5
Q710	I-5
Q711	J-5
Q716	I-5
Q717	I-5
Q718	I-5
Q721	J-5
Q722	G-5
Q724	J-5
Q725	J-5
Q901	D-3
Q906	A-5
Q907	A-5

IF-20 BOARD (CONDUCTOR SIDE)

D002	E-1
D003	F-1
D010	H-3
D051	E-2
D052	G-1
D053	F-1
D054	G-2
D167	H-1
D201	B-3
D901	D-2
D902	D-2
D903	A-5
IC601	D-4
IC602	D-5
IC603	E-5
IC701	H-4
IC702	H-5
IC703	G-5
IC704	G-4
IC801	I-4
IC802	J-4
Q002	E-2
Q003	E-1
Q004	F-1
Q005	F-1
Q007	G-2
Q051	E-2
Q052	F-2
Q053	F-2
Q054	F-2
Q055	F-2
Q056	G-2
Q061	H-2
Q165	H-2
Q167	H-2
Q168	H-2
Q169	H-3
Q170	H-1
Q171	H-1
Q172	G-2
Q174	H-1
Q175	H-1
Q176	H-1
Q177	G-1
Q178	G-1
Q181	H-1
Q183	H-2
Q186	H-1
Q201	B-1
Q202	B-1
Q203	B-1
Q204	B-1
Q205	A-2
Q207	A-2
Q208	A-2
Q209	A-3
Q210	A-3
Q211	C-1
Q212	B-1
Q214	B-2
Q215	B-2
Q216	B-3
Q217	C-1
Q220	C-2
Q221	B-2
Q229	B-2
Q230	C-3
Q231	C-3
Q233	C-2
Q234	C-3
Q330	A-4
Q331	B-4
Q332	A-5
Q333	B-5
Q335	A-4
Q336	A-5
Q337	A-5
Q338	A-5
Q339	B-4
Q340	B-5
Q341	B-5
Q342	B-4
Q401	F-5
Q402	F-5
Q403	F-5
Q404	E-5
Q405	F-5
Q406	F-5
Q410	H-4
Q411	H-4
Q413	F-5
Q501	C-4
Q502	C-4
Q505	C-4
Q506	C-5
Q509	C-5
Q511	D-5
Q512	D-5
Q513	C-4
Q514	D-4
Q515	F-4
Q516	F-4
Q519	F-4
Q520	D-5
Q601	D-4
Q602	D-4
Q603	D-4
Q604	D-4
Q605	D-4
Q606	E-5
Q608	E-5
Q609	D-5
Q610	D-5
Q611	E-5
Q612	E-5
Q613	E-5
Q615	E-5
Q616	D-5
Q701	H-5
Q706	H-5
Q712	J-5
Q713	I-5
Q714	I-5
Q715	H-5
Q719	G-5
Q720	G-5
Q723	J-5
Q726	I-5
Q727	I-5
Q902	D-1
Q903	D-2
Q904	C-5
Q905	B-5
Q908	A-5
Q909	A-5
Q910	B-5
Q911	D-3

* A-7062-009-A IF-20 BOARD, COMPLETE
****

(DIODE)

D001	8-719-104-34	DIODE 1S2836
D002	8-719-104-34	DIODE 1S2836
D003	8-719-104-34	DIODE 1S2836
D004	8-719-104-34	DIODE 1S2836
D010	8-719-800-76	DIODE 1SS226
D051	8-719-104-34	DIODE 1S2836
D052	8-719-104-34	DIODE 1S2836
D053	8-719-104-34	DIODE 1S2836
D054	8-719-104-34	DIODE 1S2836
D060	8-719-800-76	DIODE 1SS226
D165	8-719-400-18	DIODE MA152WK
D166	8-719-400-18	DIODE MA152WK
D167	8-719-800-76	DIODE 1SS226
D168	8-719-800-76	DIODE 1SS226
D169	8-719-800-76	DIODE 1SS226
D170	8-719-800-76	DIODE 1SS226
D171	8-719-104-34	DIODE 1S2836
D201	8-719-800-76	DIODE 1SS226
D901	8-719-400-18	DIODE MA152WK
D902	8-719-400-18	DIODE MA152WK
D903	8-719-104-34	DIODE 1S2836
D904	8-719-400-18	DIODE MA152WK

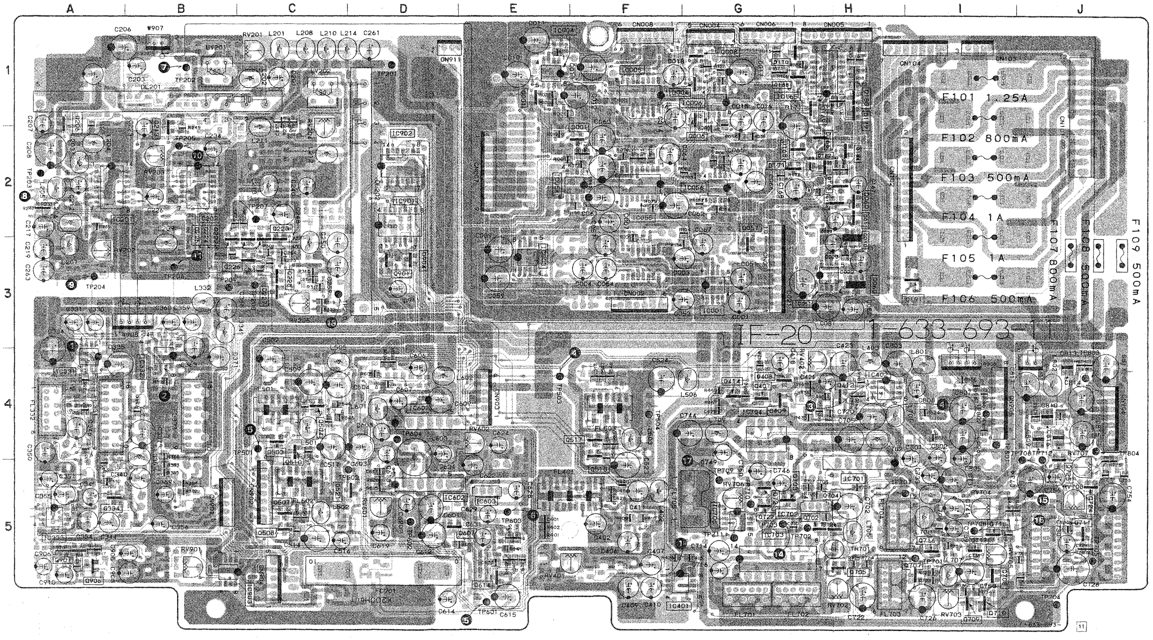
(IC)

IC001	8-759-981-92	IC RC4558M
IC003	8-759-981-92	IC RC4558M
IC004	8-759-981-92	IC RC4558M
IC005	8-759-932-64	IC BU4052BF
IC006	8-759-981-92	IC RC4558M
IC051	8-759-981-92	IC RC4558M
IC054	8-759-981-92	IC RC4558M
IC055	8-759-932-64	IC BU4052BF
IC056	8-759-981-92	IC RC4558M
IC165	8-759-200-67	IC TC4001BF
IC201	8-759-030-55	IC MC1496MR
IC202	8-759-030-55	IC MC1496MR
IC331	8-759-710-62	IC NJM2246M
IC332	8-759-710-62	IC NJM2246M
IC333	8-759-710-09	IC NJM2233AM
IC401	8-759-711-71	IC NJM2234M
IC402	8-759-711-71	IC NJM2234M
IC601	8-759-200-60	IC TA7060AP
IC602	8-759-200-60	IC TA7060AP
IC603	8-759-400-06	IC AN608P
IC701	8-759-200-60	IC TA7060AP
IC702	8-759-402-33	IC AN607P
IC703	8-752-201-30	IC CX22013
IC704	8-759-969-13	IC SN16913P
IC705	8-759-101-12	IC uPC311G2
IC801	8-752-009-51	IC CX20095A
IC802	8-752-009-51	IC CX20095A
IC901	8-759-009-10	IC MC14069UBF
IC902	8-759-009-10	IC MC14069UBF
IC903	8-759-100-93	IC uPC393G2

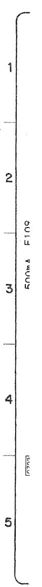
(TRANSISTOR)

Q001	8-729-202-38	TRANSISTOR 2SC3326N
Q002	8-729-202-38	TRANSISTOR 2SC3326N
Q003	8-729-202-38	TRANSISTOR 2SC3326N
Q004	8-729-202-38	TRANSISTOR 2SC3326N
Q005	8-729-202-38	TRANSISTOR 2SC3326N
Q006	8-729-202-38	TRANSISTOR 2SC3326N
Q007	8-729-202-38	TRANSISTOR 2SC3326N
Q008	8-729-202-38	TRANSISTOR 2SC3326N
Q010	8-729-140-75	TRANSISTOR 2SD999
Q011	8-729-901-06	TRANSISTOR DTA144EK
Q051	8-729-202-38	TRANSISTOR 2SC3326N
Q052	8-729-202-38	TRANSISTOR 2SC3326N
Q053	8-729-202-38	TRANSISTOR 2SC3326N
Q054	8-729-202-38	TRANSISTOR 2SC3326N
Q055	8-729-202-38	TRANSISTOR 2SC3326N
Q056	8-729-202-38	TRANSIST
Q057	8-729-202-38	TRANSIST
Q060	8-729-101-07	TRANSIST
Q061	8-729-901-01	TRANSIST
Q165	8-729-901-06	TRANSIST
Q166	8-729-901-01	TRANSIST
Q167	8-729-100-66	TRANSIST
Q168	8-729-901-06	TRANSIST
Q169	8-729-901-06	TRANSIST
Q170	8-729-901-06	TRANSIST
Q171	8-729-901-06	TRANSIST
Q172	8-729-100-66	TRANSIST
Q174	8-729-901-06	TRANSIST
Q175	8-729-901-06	TRANSIST
Q176	8-729-901-06	TRANSIST

IF-20 BOARD (COMPONENT SIDE)



IF



YNC SWITCH) PRINTED WIRING BOARDS

Q056	8-729-202-38	TRANSISTOR 2SC3326N
Q057	8-729-202-38	TRANSISTOR 2SC3326N
Q060	8-729-101-07	TRANSISTOR 2SB798
Q061	8-729-901-01	TRANSISTOR DTC144EK
Q165	8-729-901-06	TRANSISTOR DTA144EK
Q166	8-729-901-01	TRANSISTOR DTC144EK
Q167	8-729-100-66	TRANSISTOR 2SC1623
Q168	8-729-901-06	TRANSISTOR DTA144EK
Q169	8-729-901-06	TRANSISTOR DTA144EK
Q170	8-729-901-06	TRANSISTOR DTA144EK
Q171	8-729-901-06	TRANSISTOR DTA144EK
Q172	8-729-100-66	TRANSISTOR 2SC1623
Q174	8-729-901-06	TRANSISTOR DTA144EK
Q175	8-729-901-06	TRANSISTOR DTA144EK
Q176	8-729-901-06	TRANSISTOR DTA144EK
Q177	8-729-901-06	TRANSISTOR DTA144EK
Q178	8-729-901-01	TRANSISTOR DTC144EK
Q179	8-729-901-06	TRANSISTOR DTA144EK
Q180	8-729-901-01	TRANSISTOR DTC144EK
Q181	8-729-901-01	TRANSISTOR DTC144EK
Q182	8-729-216-22	TRANSISTOR 2SA1162
Q183	8-729-901-01	TRANSISTOR DTC144EK
Q184	8-729-901-01	TRANSISTOR DTC144EK
Q186	8-729-901-06	TRANSISTOR DTA144EK
Q188	8-729-901-06	TRANSISTOR DTA144EK
Q191	8-729-216-22	TRANSISTOR 2SA1162
Q201	8-729-100-66	TRANSISTOR 2SC1623
Q202	8-729-100-66	TRANSISTOR 2SC1623
Q203	8-729-100-66	TRANSISTOR 2SC1623
Q204	8-729-320-17	TRANSISTOR 2SA1122CD
Q205	8-729-100-66	TRANSISTOR 2SC1623
Q206	8-729-100-66	TRANSISTOR 2SC1623
Q207	8-729-100-66	TRANSISTOR 2SC1623
Q208	8-729-320-17	TRANSISTOR 2SA1122CD
Q209	8-729-320-17	TRANSISTOR 2SA1122CD
Q210	8-729-320-17	TRANSISTOR 2SA1122CD
Q211	8-729-320-17	TRANSISTOR 2SA1122CD
Q212	8-729-100-66	TRANSISTOR 2SC1623
Q213	8-729-100-66	TRANSISTOR 2SC1623
Q214	8-729-100-66	TRANSISTOR 2SC1623
Q215	8-729-100-66	TRANSISTOR 2SC1623
Q216	8-729-100-66	TRANSISTOR 2SC1623
Q217	8-729-100-66	TRANSISTOR 2SC1623
Q220	8-729-100-66	TRANSISTOR 2SC1623
Q221	8-729-100-66	TRANSISTOR 2SC1623
Q222	8-729-100-66	TRANSISTOR 2SC1623
Q223	8-729-100-66	TRANSISTOR 2SC1623
Q224	8-729-100-66	TRANSISTOR 2SC1623
Q225	8-729-100-66	TRANSISTOR 2SC1623
Q226	8-729-320-17	TRANSISTOR 2SA1122CD
Q227	8-729-100-66	TRANSISTOR 2SC1623
Q228	8-729-100-66	TRANSISTOR 2SC1623
Q229	8-729-100-66	TRANSISTOR 2SC1623
Q230	8-729-100-66	TRANSISTOR 2SC1623
Q231	8-729-100-66	TRANSISTOR 2SC1623
Q233	8-729-100-66	TRANSISTOR 2SC1623
Q234	8-729-100-66	TRANSISTOR 2SC1623
Q330	8-729-100-66	TRANSISTOR 2SC1623
Q331	8-729-100-66	TRANSISTOR 2SC1623
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Q334	8-729-100-66	TRANSISTOR 2SC1623
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Q341	8-729-100-66	TRANSISTOR 2SC1623
Q342	8-729-100-66	TRANSISTOR 2SC1623
Q401	8-729-100-66	TRANSISTOR 2SC1623
Q402	8-729-100-66	TRANSISTOR 2SC1623
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Q409	8-729-100-66	TRANSISTOR 2SC1623
Q410	8-729-100-66	TRANSISTOR 2SC1623
Q411	8-729-100-66	TRANSISTOR 2SC1623
Q412	8-729-100-66	TRANSISTOR 2SC1623
Q413	8-729-100-66	TRANSISTOR 2SC1623
Q414	8-729-100-66	TRANSISTOR 2SC1623
Q501	8-729-100-66	TRANSISTOR 2SC1623
Q502	8-729-100-66	TRANSISTOR 2SC1623
Q503	8-729-901-06	TRANSISTOR DTA144EK
Q504	8-729-100-66	TRANSISTOR 2SC1623
Q505	8-729-100-66	TRANSISTOR 2SC1623
Q506	8-729-100-66	TRANSISTOR 2SC1623
Q507	8-729-901-06	TRANSISTOR DTA144EK
Q508	8-729-100-66	TRANSISTOR 2SC1623
Q509	8-729-100-66	TRANSISTOR 2SC1623
Q510	8-729-100-66	TRANSISTOR 2SC1623
Q511	8-729-100-66	TRANSISTOR 2SC1623
Q512	8-729-100-66	TRANSISTOR 2SC1623
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Q514	8-729-100-66	TRANSISTOR 2SC1623
Q515	8-729-100-66	TRANSISTOR 2SC1623
Q516	8-729-100-66	TRANSISTOR 2SC1623
Q517	8-729-901-06	TRANSISTOR DTA144EK
Q518	8-729-100-66	TRANSISTOR 2SC1623
Q519	8-729-100-66	TRANSISTOR 2SC1623
Q520	8-729-901-06	TRANSISTOR DTA144EK
Q521	8-729-901-06	TRANSISTOR DTA144EK
Q601	8-729-100-66	TRANSISTOR 2SC1623
Q602	8-729-901-01	TRANSISTOR DTC144EK
Q603	8-729-100-66	TRANSISTOR 2SC1623
Q604	8-729-100-66	TRANSISTOR 2SC1623
Q605	8-729-100-66	TRANSISTOR 2SC1623
Q606	8-729-100-66	TRANSISTOR 2SC1623
Q607	8-729-100-66	TRANSISTOR 2SC1623
Q608	8-729-100-66	TRANSISTOR 2SC1623
Q609	8-729-100-66	TRANSISTOR 2SC1623
Q610	8-729-100-66	TRANSISTOR 2SC1623

Q611	8-729-100-66
Q612	8-729-901-06
Q613	8-729-901-01
Q614	8-729-901-01
Q615	8-729-901-06
Q616	8-729-901-06
Q701	8-729-100-66
Q702	8-729-100-66
Q703	8-729-202-38
Q704	8-729-100-66
Q705	8-729-100-66
Q706	8-729-100-66
Q707	8-729-100-66
Q708	8-729-100-66
Q709	8-729-100-66
Q710	8-729-100-66
Q711	8-729-100-66
Q712	8-729-100-66
Q713	8-729-100-66
Q714	8-729-100-66
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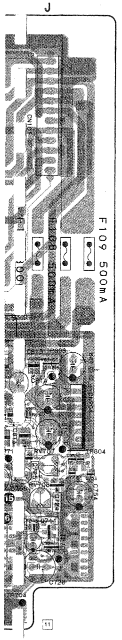
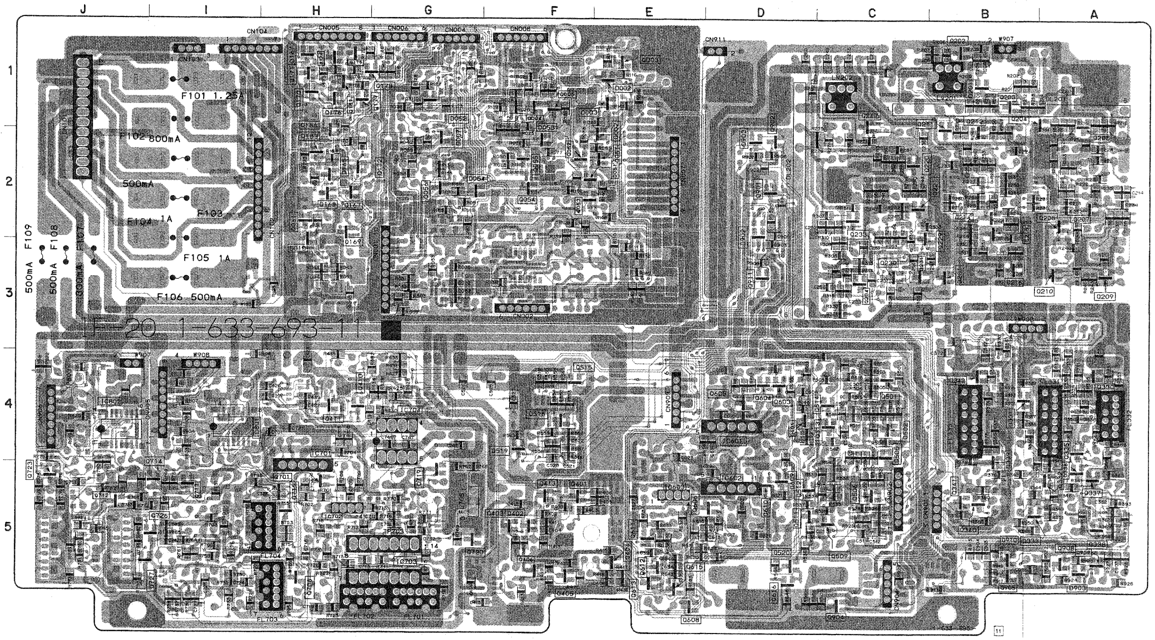
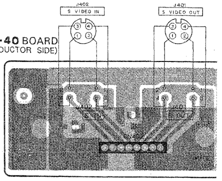
Q718	8-729-100-66
Q719	8-729-100-66



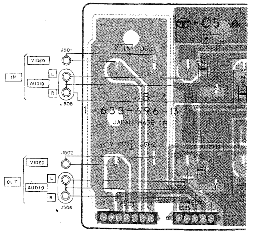
IF-20 BOARD (CONDUCTOR SIDE)



TR-40 BOARD (CONDUCTOR SIDE)



JB-4 BOARD (CONDUCTOR SIDE)



.144EK
.14 K
.14 K
:144EK
:144EK

.11
:144EK
:144EK
.14 K
.14 K

.1162
:16
:16
:1623
.1122CD

:16
:1623
:1623
.11 CD
.11 CD

Q210	8-729-320-17	TRANSISTOR 2SA1122CD
Q211	8-729-320-17	TRANSISTOR 2SA1122CD
Q212	8-729-100-66	TRANSISTOR 2SC1623
Q213	8-729-100-66	TRANSISTOR 2SC1623
Q214	8-729-100-66	TRANSISTOR 2SC1623
Q215	8-729-100-66	TRANSISTOR 2SC1623
Q216	8-729-100-66	TRANSISTOR 2SC1623
Q217	8-729-100-66	TRANSISTOR 2SC1623
Q220	8-729-100-66	TRANSISTOR 2SC1623
Q221	8-729-100-66	TRANSISTOR 2SC1623
Q222	8-729-100-66	TRANSISTOR 2SC1623
Q223	8-729-100-66	TRANSISTOR 2SC1623
Q224	8-729-100-66	TRANSISTOR 2SC1623
Q225	8-729-100-66	TRANSISTOR 2SC1623
Q226	8-729-320-17	TRANSISTOR 2SA1122CD
Q227	8-729-100-66	TRANSISTOR 2SC1623
Q228	8-729-100-66	TRANSISTOR 2SC1623
Q229	8-729-100-66	TRANSISTOR 2SC1623
Q230	8-729-100-66	TRANSISTOR 2SC1623
Q231	8-729-100-66	TRANSISTOR 2SC1623
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Q402	8-729-100-66	TRANSISTOR 2SC1623
Q403	8-729-100-66	TRANSISTOR 2SC1623
Q404	8-729-100-66	TRANSISTOR 2SC1623
Q405	8-729-100-66	TRANSISTOR 2SC1623
Q406	8-729-100-66	TRANSISTOR 2SC1623
Q407	8-729-100-66	TRANSISTOR 2SC1623
Q408	8-729-100-66	TRANSISTOR 2SC1623
Q409	8-729-100-66	TRANSISTOR 2SC1623
Q410	8-729-100-66	TRANSISTOR 2SC1623
Q411	8-729-100-66	TRANSISTOR 2SC1623
Q412	8-729-100-66	TRANSISTOR 2SC1623
Q413	8-729-100-66	TRANSISTOR 2SC1623
Q414	8-729-100-66	TRANSISTOR 2SC1623
Q501	8-729-100-66	TRANSISTOR 2SC1623
Q502	8-729-100-66	TRANSISTOR 2SC1623
Q503	8-729-901-06	TRANSISTOR DTA144EK
Q504	8-729-100-66	TRANSISTOR 2SC1623
Q505	8-729-100-66	TRANSISTOR 2SC1623
Q506	8-729-100-66	TRANSISTOR 2SC1623
Q507	8-729-901-06	TRANSISTOR DTA144EK
Q508	8-729-100-66	TRANSISTOR 2SC1623
Q509	8-729-100-66	TRANSISTOR 2SC1623
Q510	8-729-100-66	TRANSISTOR 2SC1623
Q511	8-729-100-66	TRANSISTOR 2SC1623
Q512	8-729-100-66	TRANSISTOR 2SC1623
Q513	8-729-100-66	TRANSISTOR 2SC1623
Q514	8-729-100-66	TRANSISTOR 2SC1623
Q515	8-729-100-66	TRANSISTOR 2SC1623
Q516	8-729-100-66	TRANSISTOR 2SC1623
Q517	8-729-901-06	TRANSISTOR DTA144EK
Q518	8-729-100-66	TRANSISTOR 2SC1623
Q519	8-729-100-66	TRANSISTOR 2SC1623
Q520	8-729-901-06	TRANSISTOR DTA144EK
Q521	8-729-901-06	TRANSISTOR DTA144EK
Q601	8-729-100-66	TRANSISTOR 2SC1623
Q602	8-729-901-01	TRANSISTOR DTC144EK
Q603	8-729-100-66	TRANSISTOR 2SC1623
Q604	8-729-100-66	TRANSISTOR 2SC1623
Q605	8-729-100-66	TRANSISTOR 2SC1623
Q606	8-729-100-66	TRANSISTOR 2SC1623
Q607	8-729-100-66	TRANSISTOR 2SC1623
Q608	8-729-100-66	TRANSISTOR 2SC1623
Q609	8-729-100-66	TRANSISTOR 2SC1623
Q610	8-729-100-66	TRANSISTOR 2SC1623
Q611	8-729-100-66	TRANSISTOR 2SC1623
Q612	8-729-901-06	TRANSISTOR DTA144EK
Q613	8-729-901-01	TRANSISTOR DTC144EK
Q614	8-729-901-01	TRANSISTOR DTC144EK
Q615	8-729-901-06	TRANSISTOR DTA144EK
Q616	8-729-901-06	TRANSISTOR DTA144EK
Q701	8-729-100-66	TRANSISTOR 2SC1623
Q702	8-729-100-66	TRANSISTOR 2SC1623
Q703	8-729-202-38	TRANSISTOR 2SC3326N
Q704	8-729-100-66	TRANSISTOR 2SC1623
Q705	8-729-100-66	TRANSISTOR 2SC1623
Q706	8-729-100-66	TRANSISTOR 2SC1623
Q707	8-729-100-66	TRANSISTOR 2SC1623
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Q709	8-729-100-66	TRANSISTOR 2SC1623
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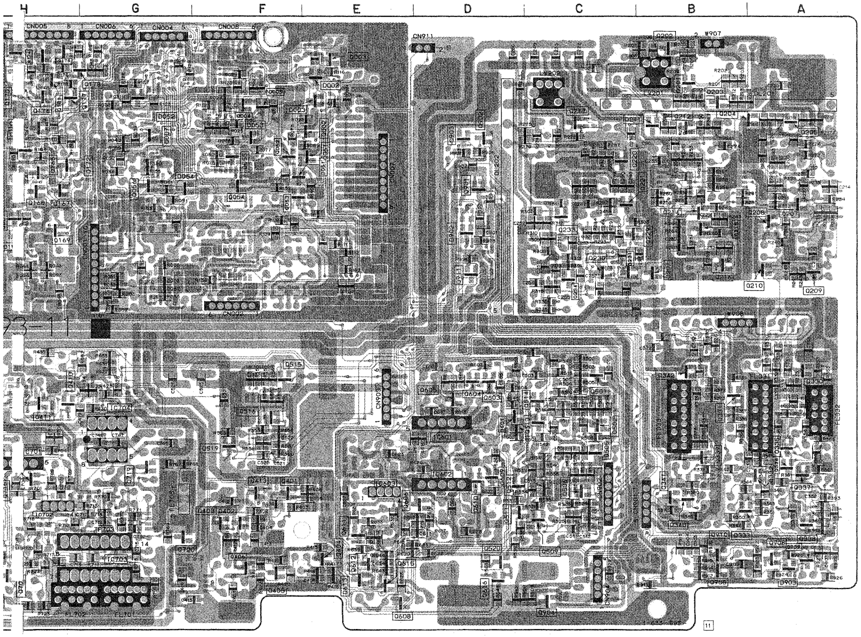
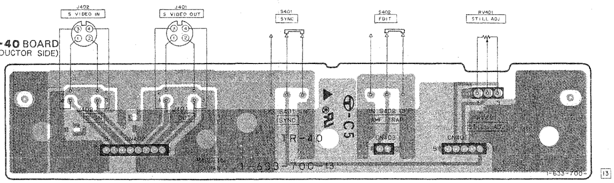
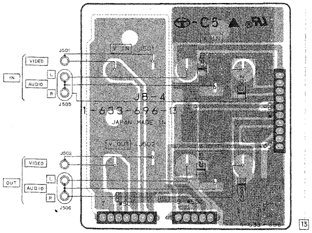
Q711	8-729-100-66	TRANSISTOR 2SC1623
Q712	8-729-100-66	TRANSISTOR 2SC1623
Q713	8-729-100-66	TRANSISTOR 2SC1623
Q714	8-729-100-66	TRANSISTOR 2SC1623
Q715	8-729-100-66	TRANSISTOR 2SC1623
Q716	8-729-100-66	TRANSISTOR 2SC1623
Q717	8-729-100-66	TRANSISTOR 2SC1623
Q718	8-729-100-66	TRANSISTOR 2SC1623
Q719	8-729-100-66	TRANSISTOR 2SC1623
Q720	8-729-100-66	TRANSISTOR 2SC1623
Q721	8-729-320-17	TRANSISTOR 2SA1122CD
Q722	8-729-100-66	TRANSISTOR 2SC1623
Q723	8-729-100-66	TRANSISTOR 2SC1623
Q724	8-729-100-66	TRANSISTOR 2SC1623
Q725	8-729-100-66	TRANSISTOR 2SC1623
Q726	8-729-100-66	TRANSISTOR 2SC1623
Q727	8-729-216-22	TRANSISTOR 2SA1162
Q901	8-729-901-01	TRANSISTOR DTC144EK
Q902	8-729-901-01	TRANSISTOR DTC144EK
Q903	8-729-901-01	TRANSISTOR DTC144EK
Q904	8-729-901-01	TRANSISTOR DTC144EK
Q905	8-729-901-05	TRANSISTOR DTA124EK
Q906	8-729-100-66	TRANSISTOR 2SC1623
Q907	8-729-100-66	TRANSISTOR 2SC1623
Q908	8-729-100-66	TRANSISTOR 2SC1623
Q909	8-729-100-66	TRANSISTOR 2SC1623
Q910	8-729-100-66	TRANSISTOR 2SC1623
Q911	8-729-901-06	TRANSISTOR DTA144EK



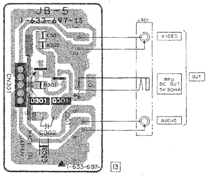
TR-40 BOARD
(CONDUCTOR SIDE)



JB-4 BOARD (CONDUCTOR SIDE)



JB-5 BOARD (CONDUCTOR SIDE)



* 1-633-697-11 JB-5 BOARD
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(DIODE)

D301	8-719-800-76	DIODE 1SS226

(TRANSISTOR)

Q301	8-729-216-22	TRANSISTOR 2SA1162

IF-20 (VIDEO SIGNAL SELECT, SHARPNESS, NOISE CANCEL, YX FILTER, Y/C MIX, AUDIO SIGNAL SELECT), JB-4 (VIDEO, AUDIO JACK), JB-5 (VIDEO, AUDIO, RFU DC OUT JACK), TR-40 (S VIDEO JACK EDIT, SYNC SWITCH) PRINTED WIRING BOA

— Ref. No. IF-20 BOARD: 8000 series, JB-4, JB-5, TR-40 BOARD: 3000 series —

IF-20 BOARD (COMPONENT SIDE)	
D001	F-2
D004	F-1
D060	H-2
D165	H-2
D166	H-1
D168	G-2
D169	H-1
D170	G-1
D171	G-2
D904	D-3
IC001	G-3
IC003	E-3
IC004	E-1
IC005	F-1
IC006	G-1
IC051	H-3
IC054	E-2
IC055	F-2
IC056	G-2
IC165	G-1
IC201	A-2
IC202	B-2
IC331	A-4
IC332	B-4
IC333	A-5
IC401	F-5
IC402	H-4
IC705	G-5
IC901	D-2
IC902	D-2
IC903	C-5
Q001	E-1
Q006	G-2
Q008	G-1
Q010	H-3
Q011	H-2
Q057	G-2
Q060	H-3
Q166	H-2
Q179	H-1
Q180	H-1
Q182	H-2
Q184	H-2
Q188	G-1
Q191	I-3
Q206	A-1
Q213	B-2
Q222	B-3
Q223	C-2
Q224	B-3
Q225	B-3
Q226	B-3
Q227	C-3
Q228	C-3
Q334	A-5
Q407	G-4
Q408	G-4
Q409	G-4
Q412	H-4
Q414	G-4
Q503	C-4
Q504	C-4
Q507	C-5
Q508	C-5
Q510	C-5
Q517	F-4
Q518	F-5
Q521	C-5
Q607	E-5
Q614	E-5
Q702	H-5
Q703	H-5
Q704	H-5
Q705	H-5
Q707	I-5
Q708	I-5
Q709	I-5
Q710	I-5
Q711	J-5
Q716	I-5
Q717	I-5
Q718	I-5
Q721	J-5
Q722	G-5
Q724	J-5
Q725	J-5
Q901	D-3
Q906	A-5
Q907	A-5

IF-20 BOARD (CONDUCTOR SIDE)	
D002	E-1
D003	F-1
D010	H-3
D051	E-2
D052	G-1
D053	F-1
D054	G-2
D167	H-1
D201	B-3
D901	D-2
D902	D-2
D903	A-5
IC601	D-4
IC602	D-5
IC603	E-5
IC701	H-4
IC702	H-5
IC703	G-5
IC704	G-4
IC801	I-4
IC802	J-4
Q002	E-2
Q003	E-1
Q004	F-1
Q005	F-1
Q007	G-2
Q051	E-2
Q052	F-2
Q053	F-2
Q054	F-2
Q055	F-2
Q056	G-2
Q061	H-2
Q165	H-2
Q167	H-2
Q168	H-2
Q169	H-3
Q170	H-1
Q171	H-1
Q172	G-2
Q174	H-1
Q175	H-1
Q176	H-1
Q177	G-1
Q178	G-1
Q181	H-1
Q183	H-2
Q186	H-1
Q201	B-1
Q202	B-1
Q203	B-1
Q204	B-1
Q205	A-2
Q207	A-2
Q208	A-2
Q209	A-3
Q210	A-3
Q211	C-1
Q212	B-1
Q214	B-2
Q215	B-2
Q216	B-3
Q217	C-1
Q220	C-2
Q221	B-2
Q229	B-2
Q230	C-3
Q231	C-3
Q233	C-2
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Q406	F-5
Q410	H-4
Q411	H-4
Q413	F-5
Q501	C-4
Q502	C-4
Q505	C-4
Q506	C-5
Q509	C-5
Q511	D-5
Q512	D-5
Q513	C-4
Q514	D-4
Q515	F-4
Q516	F-4
Q519	F-4
Q520	D-5
Q601	D-4
Q602	D-4
Q603	D-4
Q604	D-4
Q605	D-4
Q606	E-5
Q608	E-5
Q609	D-5
Q610	D-5
Q611	E-5
Q612	E-5
Q613	E-5
Q615	E-5
Q616	D-5
Q701	H-5
Q706	H-5
Q712	J-5
Q713	I-5
Q714	I-5
Q715	H-5
Q719	G-5
Q720	G-5
Q723	J-5
Q726	I-5
Q727	I-5
Q902	D-1
Q903	D-2
Q904	C-5
Q905	B-5
Q908	A-5
Q909	A-5
Q910	B-5
Q911	D-3

* A-7062-009-A IF-20 BOARD, COMPLETE
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(DIODE)

D001	8-719-104-34	DIODE 1S2836
D002	8-719-104-34	DIODE 1S2836
D003	8-719-104-34	DIODE 1S2836
D004	8-719-104-34	DIODE 1S2836
D010	8-719-800-76	DIODE 1SS226
D051	8-719-104-34	DIODE 1S2836
D052	8-719-104-34	DIODE 1S2836
D053	8-719-104-34	DIODE 1S2836
D054	8-719-104-34	DIODE 1S2836
D060	8-719-800-76	DIODE 1SS226
D165	8-719-400-18	DIODE MA152WK
D166	8-719-400-18	DIODE MA152WK
D167	8-719-800-76	DIODE 1SS226
D168	8-719-800-76	DIODE 1SS226
D169	8-719-800-76	DIODE 1SS226
D170	8-719-800-76	DIODE 1SS226
D171	8-719-104-34	DIODE 1S2836
D201	8-719-800-76	DIODE 1SS226
D901	8-719-400-18	DIODE MA152WK
D902	8-719-400-18	DIODE MA152WK
D903	8-719-104-34	DIODE 1S2836
D904	8-719-400-18	DIODE MA152WK

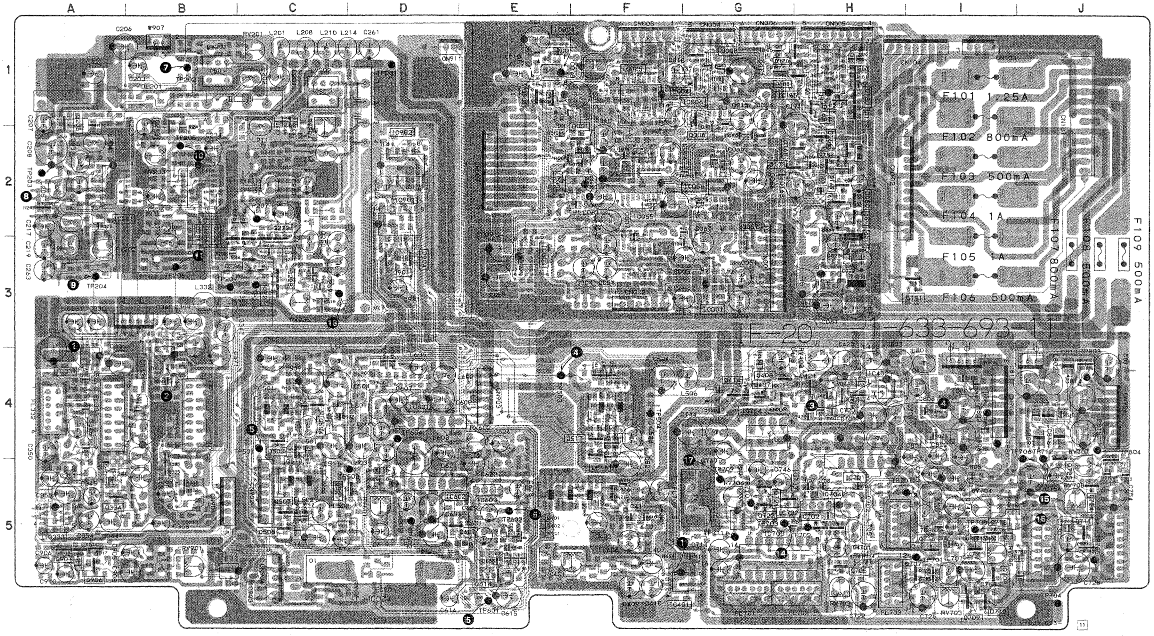
(IC)

IC001	8-759-981-92	IC RC4558M
IC003	8-759-981-92	IC RC4558M
IC004	8-759-981-92	IC RC4558M
IC005	8-759-932-64	IC BU4052BF
IC006	8-759-981-92	IC RC4558M
IC051	8-759-981-92	IC RC4558M
IC054	8-759-981-92	IC RC4558M
IC055	8-759-932-64	IC BU4052BF
IC056	8-759-981-92	IC RC4558M
IC165	8-759-200-67	IC TC4001BF
IC201	8-759-030-55	IC MC1496MR
IC202	8-759-030-55	IC MC1496MR
IC331	8-759-710-62	IC NJM2246M
IC332	8-759-710-62	IC NJM2246M
IC333	8-759-710-09	IC NJM2233AM
IC401	8-759-711-71	IC NJM2234M
IC402	8-759-711-71	IC NJM2234M
IC601	8-759-200-60	IC TA7060AP
IC602	8-759-200-60	IC TA7060AP
IC603	8-759-400-06	IC AN608P
IC701	8-759-200-60	IC TA7060AP
IC702	8-759-402-33	IC AN607P
IC703	8-752-201-30	IC CX22013
IC704	8-759-969-13	IC SN16913P
IC705	8-759-101-12	IC uPC311G2
IC801	8-752-009-51	IC CX20095A
IC802	8-752-009-51	IC CX20095A
IC901	8-759-009-10	IC MC14069UBF
IC902	8-759-009-10	IC MC14069UBF
IC903	8-759-100-93	IC uPC393G2

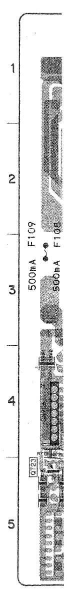
(TRANSISTOR)

Q001	8-729-202-38	TRANSISTOR 2SC3326N
Q002	8-729-202-38	TRANSISTOR 2SC3326N
Q003	8-729-202-38	TRANSISTOR 2SC3326N
Q004	8-729-202-38	TRANSISTOR 2SC3326N
Q005	8-729-202-38	TRANSISTOR 2SC3326N
Q006	8-729-202-38	TRANSISTOR 2SC3326N
Q007	8-729-202-38	TRANSISTOR 2SC3326N
Q008	8-729-202-38	TRANSISTOR 2SC3326N
Q010	8-729-140-75	TRANSISTOR 2SD999
Q011	8-729-901-06	TRANSISTOR DTA144EK
Q051	8-729-202-38	TRANSISTOR 2SC3326N
Q052	8-729-202-38	TRANSISTOR 2SC3326N
Q053	8-729-202-38	TRANSISTOR 2SC3326N
Q054	8-729-202-38	TRANSISTOR 2SC3326N
Q055	8-729-202-38	TRANSISTOR 2SC3326N
Q056	8-729-202-38	TRANSISTOR 2S
Q057	8-729-202-38	TRANSISTOR 2S
Q060	8-729-101-07	TRANSISTOR 2S
Q061	8-729-901-01	TRANSISTOR DT
Q165	8-729-901-06	TRANSISTOR DT
Q166	8-729-901-01	TRANSISTOR DT
Q167	8-729-100-66	TRANSISTOR 2S
Q168	8-729-901-06	TRANSISTOR DT
Q169	8-729-901-06	TRANSISTOR DT
Q170	8-729-901-06	TRANSISTOR DT
Q171	8-729-901-06	TRANSISTOR DTA
Q172	8-729-100-66	TRANSISTOR 2SC
Q174	8-729-901-06	TRANSISTOR DTA
Q175	8-729-901-06	TRANSISTOR DTA
Q176	8-729-901-06	TRANSISTOR DTA

IF-20 BOARD (COMPONENT SIDE)



IF-20 B



O JACK EDIT, SYNC SWITCH) PRINTED WIRING BOARDS

(TRANSISTOR)

2-	TRANSISTOR 2SC3326N
2-	TRANSISTOR 2SC3326N
2-38	TRANSISTOR 2SC3326N
2-	TRANSISTOR 2SC3326N
2-	TRANSISTOR 2SC3326N
2-38	TRANSISTOR 2SC3326N
2-	TRANSISTOR 2SC3326N
2-	TRANSISTOR 2SC3326N
40-	TRANSISTOR 2SD999
1-06	TRANSISTOR DTA144EK
2-	TRANSISTOR 2SC3326N
2-	TRANSISTOR 2SC3326N
2-38	TRANSISTOR 2SC3326N
2-	TRANSISTOR 2SC3326N
2-	TRANSISTOR 2SC3326N

Q056	8-729-202-38	TRANSISTOR 2SC3326N
Q057	8-729-202-38	TRANSISTOR 2SC3326N
Q060	8-729-101-07	TRANSISTOR 2SB798
Q061	8-729-901-01	TRANSISTOR DTC144EK
Q165	8-729-901-06	TRANSISTOR DTA144EK
Q166	8-729-901-01	TRANSISTOR DTC144EK
Q167	8-729-100-66	TRANSISTOR 2SC1623
Q168	8-729-901-06	TRANSISTOR DTA144EK
Q169	8-729-901-06	TRANSISTOR DTA144EK
Q170	8-729-901-06	TRANSISTOR DTA144EK
Q171	8-729-901-06	TRANSISTOR DTA144EK
Q172	8-729-100-66	TRANSISTOR 2SC1623
Q174	8-729-901-06	TRANSISTOR DTA144EK
Q175	8-729-901-06	TRANSISTOR DTA144EK
Q176	8-729-901-06	TRANSISTOR DTA144EK
Q177	8-729-901-06	TRANSISTOR DTA144EK
Q178	8-729-901-01	TRANSISTOR DTC144EK
Q179	8-729-901-06	TRANSISTOR DTA144EK
Q180	8-729-901-01	TRANSISTOR DTC144EK
Q181	8-729-901-01	TRANSISTOR DTC144EK
Q182	8-729-216-22	TRANSISTOR 2SA1162
Q183	8-729-901-01	TRANSISTOR DTC144EK
Q184	8-729-901-01	TRANSISTOR DTC144EK
Q186	8-729-901-06	TRANSISTOR DTA144EK
Q188	8-729-901-06	TRANSISTOR DTA144EK
Q191	8-729-216-22	TRANSISTOR 2SA1162
Q201	8-729-100-66	TRANSISTOR 2SC1623
Q202	8-729-100-66	TRANSISTOR 2SC1623
Q203	8-729-100-66	TRANSISTOR 2SC1623
Q204	8-729-320-17	TRANSISTOR 2SA1122CD
Q205	8-729-100-66	TRANSISTOR 2SC1623
Q206	8-729-100-66	TRANSISTOR 2SC1623
Q207	8-729-100-66	TRANSISTOR 2SC1623
Q208	8-729-320-17	TRANSISTOR 2SA1122CD
Q209	8-729-320-17	TRANSISTOR 2SA1122CD
Q210	8-729-320-17	TRANSISTOR 2SA1122CD
Q211	8-729-320-17	TRANSISTOR 2SA1122CD
Q212	8-729-100-66	TRANSISTOR 2SC1623
Q213	8-729-100-66	TRANSISTOR 2SC1623
Q214	8-729-100-66	TRANSISTOR 2SC1623
Q215	8-729-100-66	TRANSISTOR 2SC1623
Q216	8-729-100-66	TRANSISTOR 2SC1623
Q217	8-729-100-66	TRANSISTOR 2SC1623
Q220	8-729-100-66	TRANSISTOR 2SC1623
Q221	8-729-100-66	TRANSISTOR 2SC1623
Q222	8-729-100-66	TRANSISTOR 2SC1623
Q223	8-729-100-66	TRANSISTOR 2SC1623
Q224	8-729-100-66	TRANSISTOR 2SC1623
Q225	8-729-100-66	TRANSISTOR 2SC1623
Q226	8-729-320-17	TRANSISTOR 2SA1122CD
Q227	8-729-100-66	TRANSISTOR 2SC1623
Q228	8-729-100-66	TRANSISTOR 2SC1623
Q229	8-729-100-66	TRANSISTOR 2SC1623
Q230	8-729-100-66	TRANSISTOR 2SC1623
Q231	8-729-100-66	TRANSISTOR 2SC1623
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Q341	8-729-100-66	TRANSISTOR 2SC1623
Q342	8-729-100-66	TRANSISTOR 2SC1623
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Q402	8-729-100-66	TRANSISTOR 2SC1623
Q403	8-729-100-66	TRANSISTOR 2SC1623
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Q412	8-729-100-66	TRANSISTOR 2SC1623
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Q414	8-729-100-66	TRANSISTOR 2SC1623
Q501	8-729-100-66	TRANSISTOR 2SC1623
Q502	8-729-100-66	TRANSISTOR 2SC1623
Q503	8-729-901-06	TRANSISTOR DTA144EK
Q504	8-729-100-66	TRANSISTOR 2SC1623
Q505	8-729-100-66	TRANSISTOR 2SC1623
Q506	8-729-100-66	TRANSISTOR 2SC1623
Q507	8-729-901-06	TRANSISTOR DTA144EK
Q508	8-729-100-66	TRANSISTOR 2SC1623
Q509	8-729-100-66	TRANSISTOR 2SC1623
Q510	8-729-100-66	TRANSISTOR 2SC1623
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Q512	8-729-100-66	TRANSISTOR 2SC1623
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Q514	8-729-100-66	TRANSISTOR 2SC1623
Q515	8-729-100-66	TRANSISTOR 2SC1623
Q516	8-729-100-66	TRANSISTOR 2SC1623
Q517	8-729-901-06	TRANSISTOR DTA144EK
Q518	8-729-100-66	TRANSISTOR 2SC1623
Q519	8-729-100-66	TRANSISTOR 2SC1623
Q520	8-729-901-06	TRANSISTOR DTA144EK
Q521	8-729-901-06	TRANSISTOR DTA144EK
Q601	8-729-100-66	TRANSISTOR 2SC1623
Q602	8-729-901-01	TRANSISTOR DTC144EK
Q603	8-729-100-66	TRANSISTOR 2SC1623
Q604	8-729-100-66	TRANSISTOR 2SC1623
Q605	8-729-100-66	TRANSISTOR 2SC1623
Q606	8-729-100-66	TRANSISTOR 2SC1623
Q607	8-729-100-66	TRANSISTOR 2SC1623
Q608	8-729-100-66	TRANSISTOR 2SC1623
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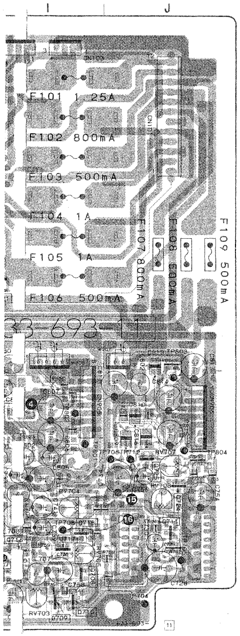
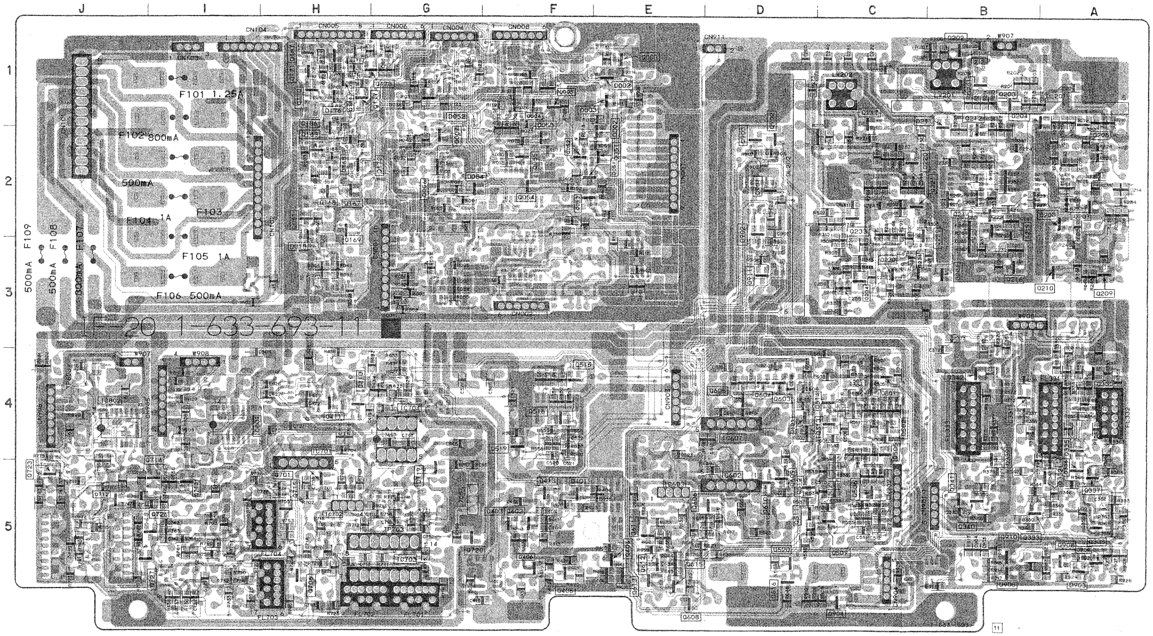
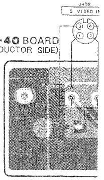
Q610	8-729-100-66	TRANSISTOR 2SC1623



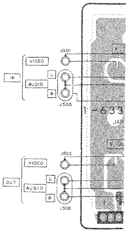
IF-20 BOARD (CONDUCTOR SIDE)



TR-40 BOARD (CONDUCTOR SIDE)



JB-4 BC



Q210	8-729-320-17	TRANSISTOR 2SA1122CD
Q211	8-729-320-17	TRANSISTOR 2SA1122CD
Q212	8-729-100-66	TRANSISTOR 2SC1623
Q213	8-729-100-66	TRANSISTOR 2SC1623
Q214	8-729-100-66	TRANSISTOR 2SC1623
Q215	8-729-100-66	TRANSISTOR 2SC1623
Q216	8-729-100-66	TRANSISTOR 2SC1623
Q217	8-729-100-66	TRANSISTOR 2SC1623
Q220	8-729-100-66	TRANSISTOR 2SC1623
Q221	8-729-100-66	TRANSISTOR 2SC1623
Q222	8-729-100-66	TRANSISTOR 2SC1623
Q223	8-729-100-66	TRANSISTOR 2SC1623
Q224	8-729-100-66	TRANSISTOR 2SC1623
Q225	8-729-100-66	TRANSISTOR 2SC1623
Q226	8-729-320-17	TRANSISTOR 2SA1122CD
Q227	8-729-100-66	TRANSISTOR 2SC1623
Q228	8-729-100-66	TRANSISTOR 2SC1623
Q229	8-729-100-66	TRANSISTOR 2SC1623
Q230	8-729-100-66	TRANSISTOR 2SC1623
Q231	8-729-100-66	TRANSISTOR 2SC1623
Q233	8-729-100-66	TRANSISTOR 2SC1623
Q234	8-729-100-66	TRANSISTOR 2SC1623
Q330	8-729-100-66	TRANSISTOR 2SC1623
Q331	8-729-100-66	TRANSISTOR 2SC1623
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Q333	8-729-100-66	TRANSISTOR 2SC1623
Q334	8-729-100-66	TRANSISTOR 2SC1623
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Q342	8-729-100-66	TRANSISTOR 2SC1623
Q401	8-729-100-66	TRANSISTOR 2SC1623
Q402	8-729-100-66	TRANSISTOR 2SC1623
Q403	8-729-100-66	TRANSISTOR 2SC1623
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Q411	8-729-100-66	TRANSISTOR 2SC1623
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Q413	8-729-100-66	TRANSISTOR 2SC1623
Q414	8-729-100-66	TRANSISTOR 2SC1623
Q501	8-729-100-66	TRANSISTOR 2SC1623
Q502	8-729-100-66	TRANSISTOR 2SC1623
Q503	8-729-901-06	TRANSISTOR DTA144EK
Q504	8-729-100-66	TRANSISTOR 2SC1623
Q505	8-729-100-66	TRANSISTOR 2SC1623
Q506	8-729-100-66	TRANSISTOR 2SC1623
Q507	8-729-901-06	TRANSISTOR DTA144EK
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Q515	8-729-100-66	TRANSISTOR 2SC1623
Q516	8-729-100-66	TRANSISTOR 2SC1623
Q517	8-729-901-06	TRANSISTOR DTA144EK
Q518	8-729-100-66	TRANSISTOR 2SC1623
Q519	8-729-100-66	TRANSISTOR 2SC1623
Q520	8-729-901-06	TRANSISTOR DTA144EK
Q521	8-729-901-06	TRANSISTOR DTA144EK
Q601	8-729-100-66	TRANSISTOR 2SC1623
Q602	8-729-901-01	TRANSISTOR DTC144EK
Q603	8-729-100-66	TRANSISTOR 2SC1623
Q604	8-729-100-66	TRANSISTOR 2SC1623
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Q610	8-729-100-66	TRANSISTOR 2SC1623
Q611	8-729-100-66	TRANSISTOR 2SC1623
Q612	8-729-901-06	TRANSISTOR DTA144EK
Q613	8-729-901-01	TRANSISTOR DTC144EK
Q614	8-729-901-01	TRANSISTOR DTC144EK
Q615	8-729-901-06	TRANSISTOR DTA144EK
Q616	8-729-901-06	TRANSISTOR DTA144EK
Q701	8-729-100-66	TRANSISTOR 2SC1623
Q702	8-729-100-66	TRANSISTOR 2SC1623
Q703	8-729-202-38	TRANSISTOR 2SC3326N
Q704	8-729-100-66	TRANSISTOR 2SC1623
Q705	8-729-100-66	TRANSISTOR 2SC1623
Q706	8-729-100-66	TRANSISTOR 2SC1623
Q707	8-729-100-66	TRANSISTOR 2SC1623
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Q712	8-729-100-66	TRANSISTOR 2SC1623
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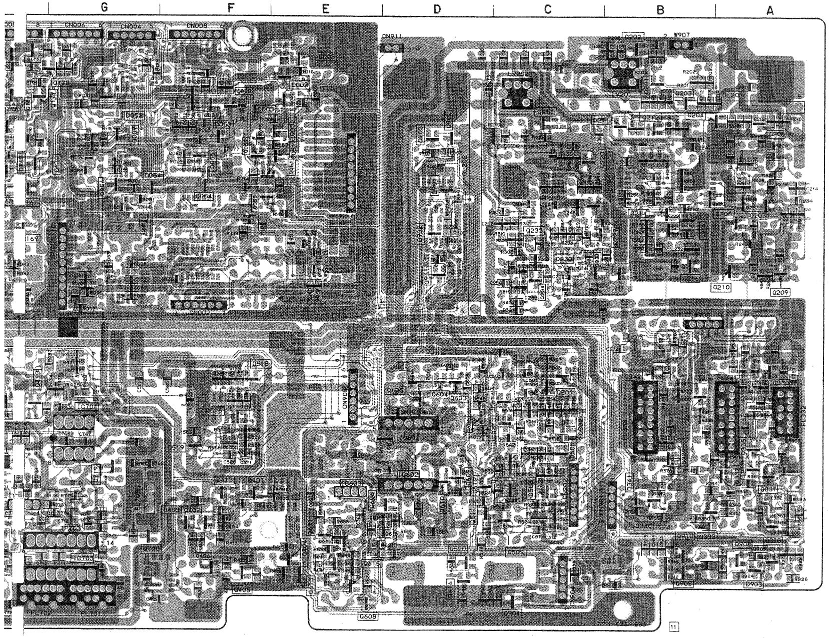
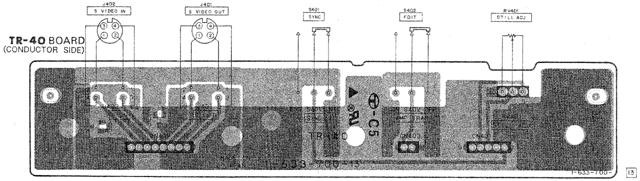
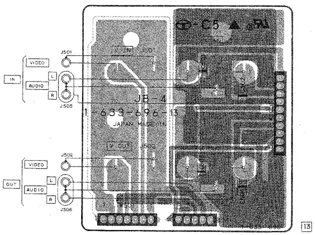
Q714	8-729-100-66	TRANSISTOR 2SC1623
Q715	8-729-100-66	TRANSISTOR 2SC1623
Q716	8-729-100-66	TRANSISTOR 2SC1623
Q717	8-729-100-66	TRANSISTOR 2SC1623
Q718	8-729-100-66	TRANSISTOR 2SC1623
Q719	8-729-100-66	TRANSISTOR 2SC1623
Q720	8-729-100-66	TRANSISTOR 2SC1623
Q721	8-729-320-17	TRANSISTOR 2SA1122CD
Q722	8-729-100-66	TRANSISTOR 2SC1623
Q723	8-729-100-66	TRANSISTOR 2SC1623
Q724	8-729-100-66	TRANSISTOR 2SC1623
Q725	8-729-100-66	TRANSISTOR 2SC1623
Q726	8-729-100-66	TRANSISTOR 2SC1623
Q727	8-729-216-22	TRANSISTOR 2SA1162
Q901	8-729-901-01	TRANSISTOR DTC144EK
Q902	8-729-901-01	TRANSISTOR DTC144EK
Q903	8-729-901-01	TRANSISTOR DTC144EK
Q904	8-729-901-01	TRANSISTOR DTC144EK
Q905	8-729-901-05	TRANSISTOR DTA124EK
Q906	8-729-100-66	TRANSISTOR 2SC1623
Q907	8-729-100-66	TRANSISTOR 2SC1623
Q908	8-729-100-66	TRANSISTOR 2SC1623
Q909	8-729-100-66	TRANSISTOR 2SC1623
Q910	8-729-100-66	TRANSISTOR 2SC1623
Q911	8-729-901-06	TRANSISTOR DTA144EK



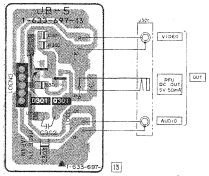
TR-40 BOARD
(CONDUCTOR SIDE)



JB-4 BOARD (CONDUCTOR SIDE)



JB-5 BOARD (CONDUCTOR SIDE)



* 1-633-697-11 JB-5 BOARD
****

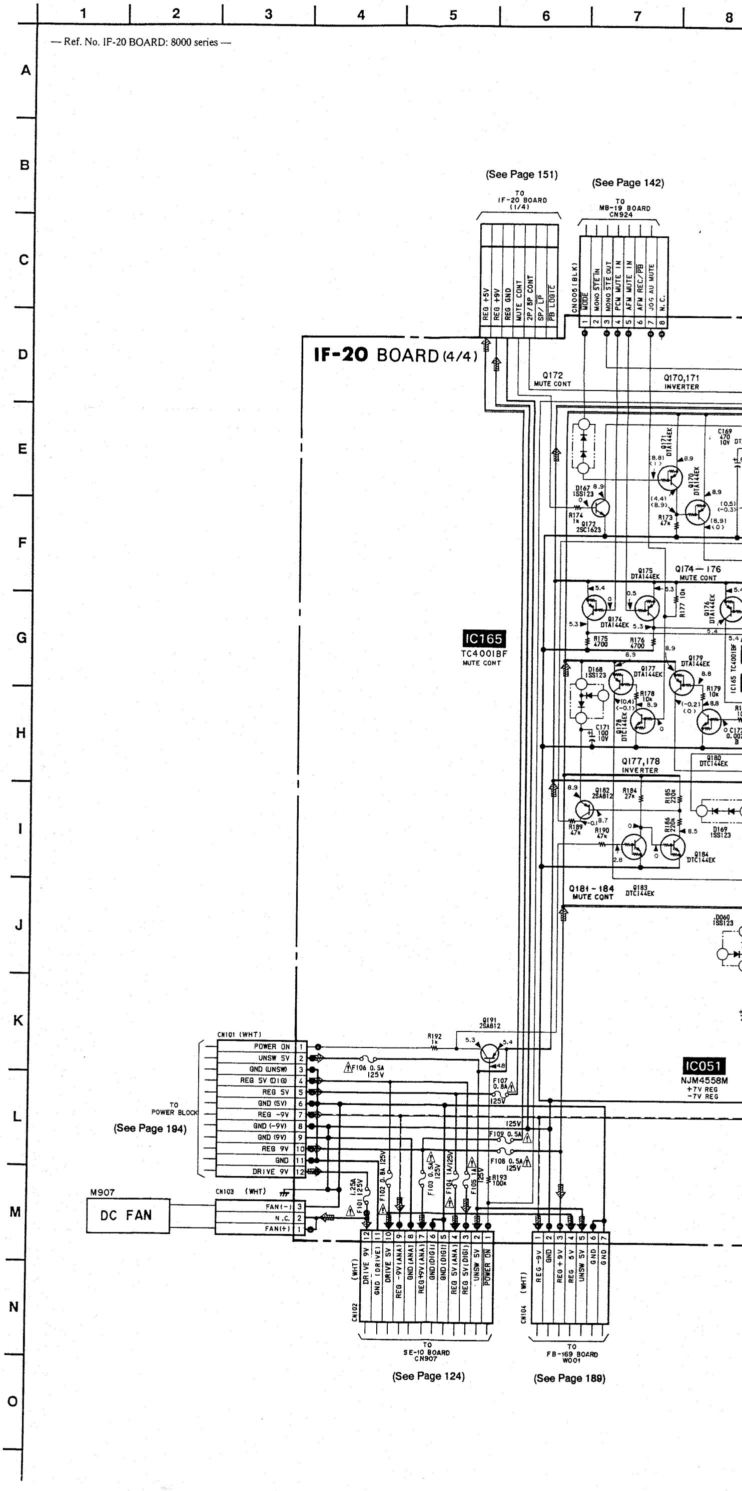
(DIODE)

D301	8-719-800-76	DIODE 1SS226

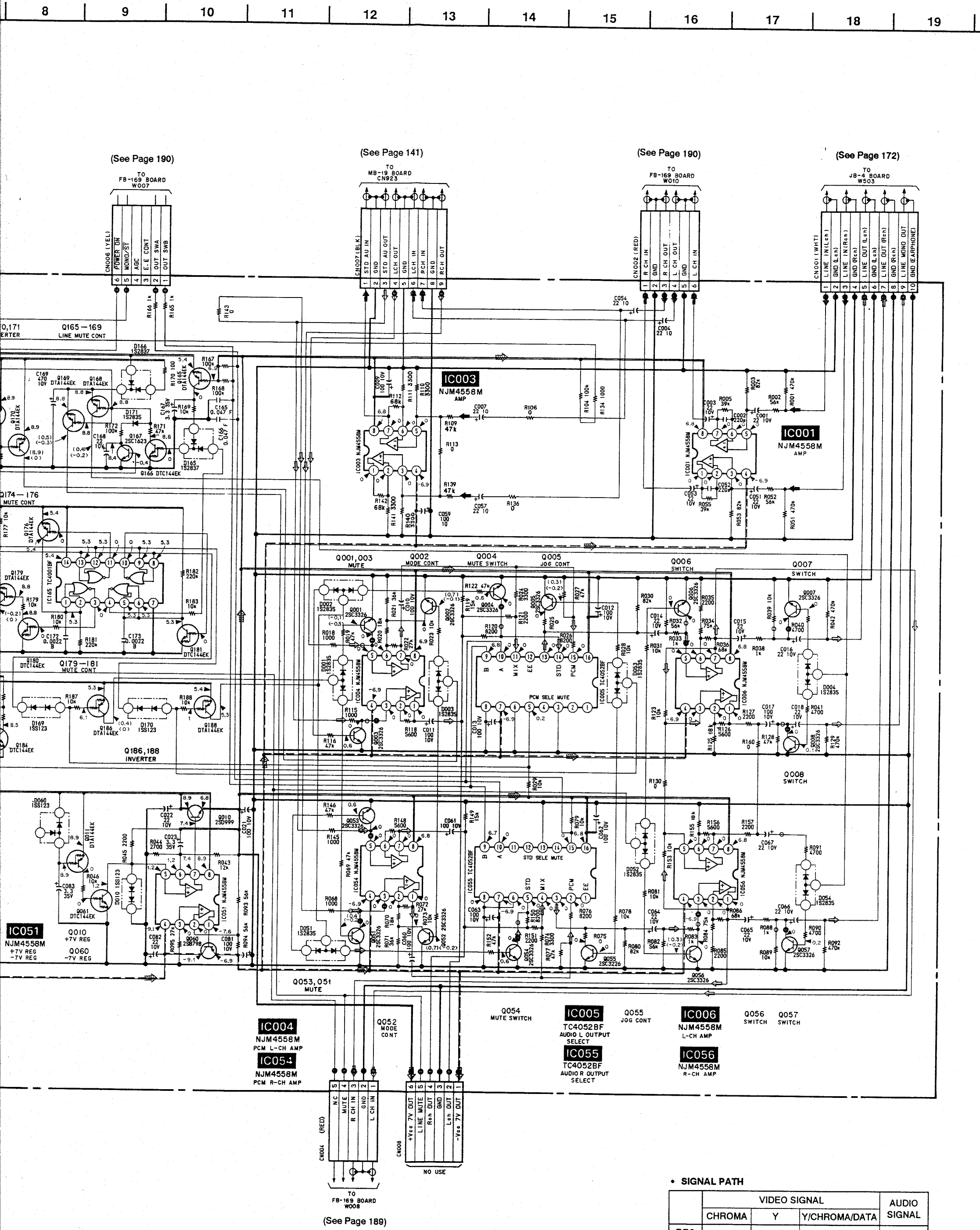
(TRANSISTOR)

Q301	8-729-216-22	TRANSISTOR 2SA1162

IF-20 (AUDIO SIGNAL SELECT) SCHEMATIC DIAGRAM


— Ref. No. IF-20 BOARD: 8000 series —

1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
IF-20 BOARD (4/4)
(See Page 151)
TO IF-20 BOARD (1/4)
REG +5V
REG +9V
REG GND
MUTE CONT
2P/8P CONT
SP/LP
PB LOGIC
(See Page 142)
TO MB-19 BOARD CN924
CN005 (BLK)
MODE
MONO STE IN
MONO STE OUT
PCM MUTE IN
AFM MUTE IN
AFM REC/PB
JOG AU MUTE
N.C.
Q172 MUTE CONT
Q170,171 INVERTER
Q171 DTA144EK
Q170 DTA144EK
D167 1SS123
R174 1k
Q172 2SC1623
R173 47k
C169 470 10V
Q175 DTA144EK
Q174-176 MUTE CONT
Q174 DTA144EK
Q176 DTA144EK
R175 4700
R176 4700
R177 10k
IC165
TC4001BF
MUTE CONT
IC165 TC4001BF
D168 1SS123
Q177 DTA144EK
Q178 DTC144EK
Q179 DTA144EK
R178 10k
R179 10k
C171 100 10V
Q180 DTC144EK
Q177,178 INVERTER
Q182 2SA812
R184 27k
R185 220k
R186 220k
R189 47k
R190 47k
D169 1SS123
Q184 DTC144EK
Q181-184 MUTE CONT
Q183 DTC144EK
D060 1SS123
IC051
NJM4558M
+7V REG
-7V REG
Q191 2SA812
R192 1k
F106 0.5A 125V
F107 0.8A 125V
F109 0.5A 125V
F108 0.5A 125V
R193 100k
F101 1.25A 125V
F102 0.8A 125V
F103 0.5A 125V
F104 1A/125V
F105 1A 125V
CN101 (WHT)
POWER ON
UNSW 5V
GND (UNSW)
REG 5V (DIG)
REG 5V
GND (5V)
REG -9V
GND (-9V)
GND (9V)
REG 9V
GND
DRIVE 9V
TO POWER BLOCK
(See Page 194)
M907
DC FAN
CN103 (WHT)
FAN(-)
N.C.
FAN(+)
CN102 (WHT)
DRIVE 9V
GND (DRIVE)
DRIVE 5V
REG -9V(ANA)
GND(ANA)
REG+9V(ANA)
GND(DIGI)
REG 5V(ANA)
REG 5V(DIGI)
UNSW 5V
POWER ON
TO SE-10 BOARD CN907
(See Page 124)
CN104 (WHT)
REG -9V
GND
REG +9V
REG 5V
UNSW 5V
GND
GND
TO FB-169 BOARD W001
(See Page 189)


8
9
10
11
12
13
14
15
16
17
18
19
(See Page 190)
TO FB-169 BOARD W007
CN006 (YEL)
POWER ON
MONO/ST
AGC
E.E CONT
OUT SWA
OUT SWB
(See Page 141)
TO MB-19 BOARD CN923
CN007 (BLK)
STD AU IN
GND
STD AU OUT
LCH OUT
GND
LCH IN
RCH IN
GND
RCH OUT
(See Page 190)
TO FB-169 BOARD W010
CN002 (RED)
R CH IN
GND
R CH OUT
L CH OUT
GND
L CH IN
(See Page 172)
TO JB-4 BOARD W503
CN001 (WHT)
LINE IN (Lch)
GND (Lch)
LINE IN (Rch)
GND (Rch)
LINE OUT (Lch)
GND (Lch)
LINE OUT (Rch)
GND (Rch)
LINE MONO OUT
GND (EARPHONE)
Q165-169 LINE MUTE CONT
Q174-176 MUTE CONT
Q179-181 MUTE CONT
Q186,188 INVERTER
IC003 NJM4558M AMP
IC001 NJM4558M AMP
Q001,003 MUTE
Q002 MODE CONT
Q004 MUTE SWITCH
Q005 JOG CONT
Q006 SWITCH
Q007 SWITCH
Q008 SWITCH
PCM SELE MUTE
STD SELE MUTE
IC051 NJM4558M +7V REG -7V REG
Q010 +7V REG
Q060 -7V REG
Q053,051 MUTE
Q052 MODE CONT
Q054 MUTE SWITCH
IC004 NJM4558M PCM L-CH AMP
IC054 NJM4558M PCM R-CH AMP
IC005 TC4052BF AUDIO L OUTPUT SELECT
IC055 TC4052BF AUDIO R OUTPUT SELECT
Q055 JOG CONT
IC006 NJM4558M L-CH AMP
IC056 NJM4558M R-CH AMP
Q056 SWITCH
Q057 SWITCH
CN004 (RED)
NC
MUTE
R CH IN
GND
L CH IN
CN008
+Vcc 7V OUT
LINE MUTE
Rch OUT
GND
Lch OUT
-Vcc 7V OUT
NO USE
TO FB-169 BOARD W008
(See Page 189)

• **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC				➡
PB				⇨

FB-169 (FUNCTION CONTROL, FUNCTION SWITCH), TC-20 (LED INDICATER), MJ-25 (MIC IN), HE-2 (HEADPHONE OUT) PRINTED WIRING BOARDS

— Ref. No. HE-2 BOARD: 6000 series, FB-169, MJ-25, TC-20 BOARD: 9000 series —

* A-7062-654-A FB-169 (P) BOARD, COMPLETE
****

(DIODE)

D001	8-719-800-76	DIODE 1SS226
D009	8-719-945-82	DIODE GL5HS42 (STANDBY)
D010	8-719-920-05	DIODE TLG123A (POWER)
D011	8-719-907-92	DIODE GL5EG41 (PCM)
D012	8-719-941-46	DIODE GL5HY41 (SP)
D013	8-719-941-46	DIODE GL5HY41 (⌼)
D014	8-719-918-96	DIODE TL0123 (▮▮)
D015	8-719-812-32	DIODE TLY123 (▸▸)
D016	8-719-920-05	DIODE TLG123A (▶)
D017	8-719-812-32	DIODE TLY123 (◂◂)
D018	8-719-939-36	DIODE GL5HY42 (⏏)
D019	8-719-812-31	DIODE TLR123 (●)
D020	8-719-913-59	DIODE LT-9230N (Hi8)
D024	8-719-906-58	DIODE GL5HD41 (TIMER REC)
D025	8-719-812-31	DIODE TLR123 (AUDIO DUB)
D026	8-719-812-31	DIODE TLR123 (TC DUB)
D101	8-719-104-34	DIODE 1S2836
D102	8-719-104-34	DIODE 1S2836
D103	1-520-503-11	METER UNIT, LED LEVEL
D155	8-719-104-34	DIODE 1S2836
D156	8-719-104-34	DIODE 1S2836
D157	8-719-400-18	DIODE MA152WK
D158	8-719-104-34	DIODE 1S2836

(IC)

IC001	8-752-830-17	IC CXP5046H-262Q
IC002	8-759-937-56	IC S-8054ALB-LM-S
IC003	8-741-100-48	IC SBX1610-59
IC004	8-759-927-46	IC SN74HC00ANS
IC101	8-759-981-XX	IC NJM4560M
IC102	8-759-300-71	IC TC4053BFHB
IC152	8-759-981-92	IC NJM4558M
IC153	8-759-981-92	IC NJM4558M
IC154	8-759-700-62	IC NJM4562M

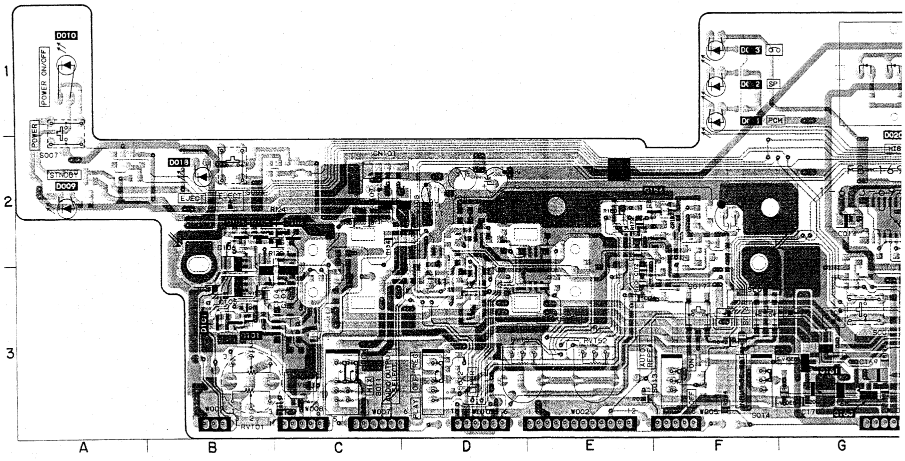
(TRANSISTOR)

Q012	8-729-901-06	TRANSISTOR DTA144EK
Q013	8-729-140-88	TRANSISTOR FP1A3M
Q015	8-729-216-22	TRANSISTOR 2SA1162
Q016	8-729-900-53	TRANSISTOR DTC114EK
Q017	8-729-901-06	TRANSISTOR DTA144EK
Q018	8-729-901-06	TRANSISTOR DTA144EK
Q019	8-729-901-01	TRANSISTOR DTC144EK
Q101	8-729-901-01	TRANSISTOR DTC144EK
Q103	8-729-216-22	TRANSISTOR 2SA1162
Q104	8-729-100-66	TRANSISTOR 2SC1623
Q105	8-729-202-38	TRANSISTOR 2SC3326N
Q106	8-729-202-38	TRANSISTOR 2SC3326N
Q153	8-729-202-38	TRANSISTOR 2SC3326N
Q154	8-729-202-38	TRANSISTOR 2SC3326N
Q155	8-729-202-38	TRANSISTOR 2SC3326N
Q156	8-729-100-66	TRANSISTOR 2SC1623
Q157	8-729-901-06	TRANSISTOR DTA144EK
Q158	8-729-901-06	TRANSISTOR DTA144EK
Q159	8-729-901-01	TRANSISTOR DTC144EK
Q160	8-729-140-75	TRANSISTOR 2SD999-CLCK
Q161	8-729-101-07	TRANSISTOR 2SB798-DLDK
Q162	8-729-202-38	TRANSISTOR 2SC3326N

FB-169 BOARD (COMPONENT SIDE)

D001	I-2
D008	G-3
D009	A-2
D010	A-1
D011	F-1
D012	F-1
D013	F-1
D014	K-2
D015	J-3
D016	I-2
D017	H-2
D018	B-2
D019	K-2
D020	G-2
D024	K-1
D025	J-3
D026	H-3
D101	B-3
D102	C-2
D151	D-3
D153	D-3
D154	D-2
IC001	I-2
IC003	I-1
Q101	B-3
Q105	B-2
Q106	B-2
Q151	D-3
Q154	F-2
Q156	I-3
Q160	G-3
Q161	G-3

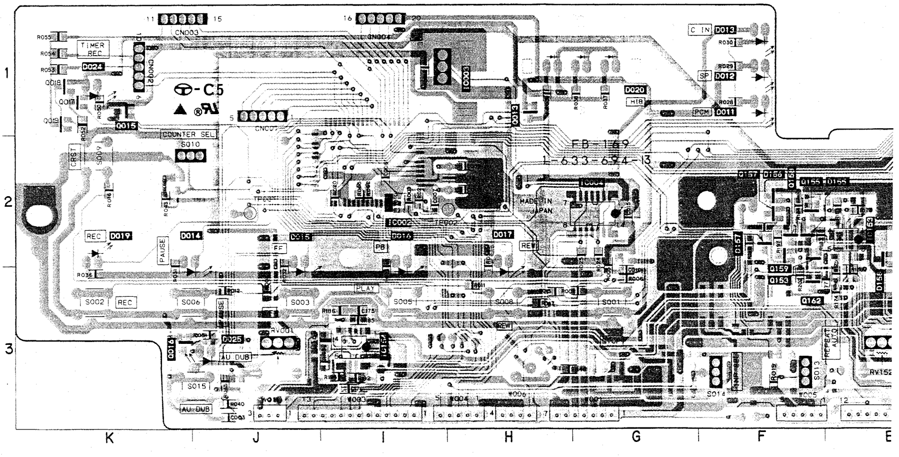
FB-169 BOARD (COMPONENT SIDE)

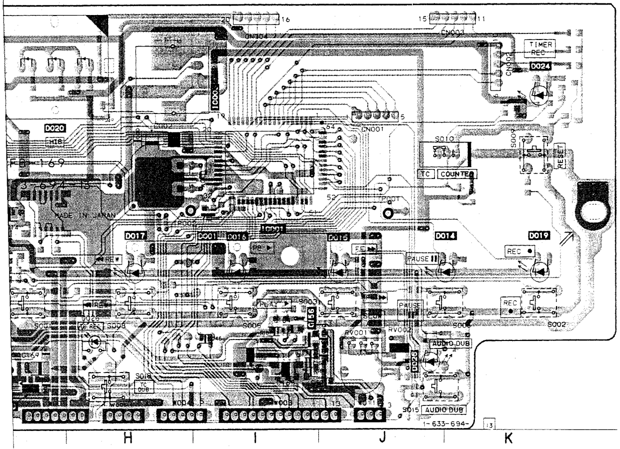

D010
POWER ON/OFF
POWER
S007
STNDBY
D009
D018
EJECT
CN101
D013
D012
SP
D011
PCM
D020
HI8
FB-169
RV152
W008
W007
W006
W002
W005
S014
RV101
1
2
3
A
B
C
D
E
F
G

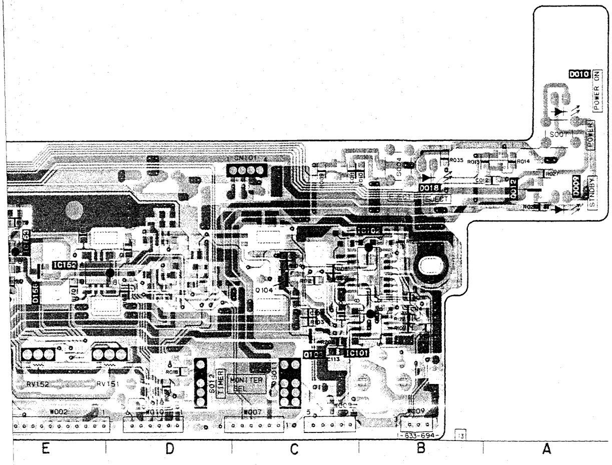
FB-169 BOARD (CONDUCTOR SIDE)

D002	G-2
D003	C-2
D004	A-2
D005	D-3
D006	D-3
D007	F-3
D021	J-2
D023	J-3
D152	D-2
D155	E-2
D156	F-2
D157	F-2
D158	E-3
IC002	I-2
IC004	G-2
IC101	B-3
IC102	B-2
IC152	E-2
IC153	E-2
IC154	I-3
Q012	A-2
Q013	H-1
Q015	K-1
Q016	K-3
Q017	K-3
Q018	K-3
Q019	K-3
Q103	C-3
Q104	C-3
Q152	D-3
Q153	F-3
Q155	F-2
Q157	F-2
Q158	F-2
Q159	F-3
Q162	F-3

FB-169 BOARD (CONDUCTOR SIDE)


CN003
CN004
TIMER REC
D024
CN002
D015
COUNTER SEL
S010
CN007
IC003
D013
C IN
D012
SP
D011
PCM
D020
HI8
FB-169
1-633-694-13
MADE IN JAPAN
IC004
IC002
REC
D019
PAUSE
D014
FF
D016
PB
D017
REW
PLAY
S002
S006
S003
S005
S008
S001
D025
AU DUB
S015
RV001
S014
S013
RV152
1
2
3
K
J
I
H
G
F
E


TIMER REC
D024
D020
D017
D001
D016
D015
D014
D019
REC
PAUSE
TC
COUNTER
RESET
AUDIO DUB
MADE IN JAPAN
1-633-694-
H
I
J
K

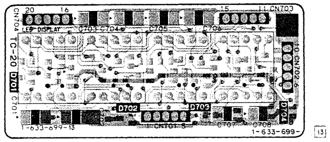

D010
POWER ON
POWER
STNDBY
S007
D018
EJECT
IC102
IC101
IC152
Q104
RV152
RV151
TIMER
MONITTER SEL
1-633-694-
E
D
C
B
A

* 1-633-699-11 TC-20 BOARD
****

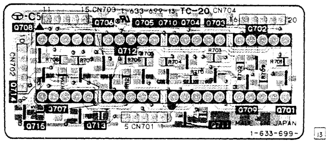
(TRANSISTOR)

Q701	8-729-140-88	TRANSISTOR FP1A3M
Q702	8-729-140-88	TRANSISTOR FP1A3M
Q703	8-729-140-88	TRANSISTOR FP1A3M
Q704	8-729-140-88	TRANSISTOR FP1A3M
Q705	8-729-140-88	TRANSISTOR FP1A3M
Q706	8-729-140-88	TRANSISTOR FP1A3M
Q707	8-729-140-88	TRANSISTOR FP1A3M
Q708	8-729-140-88	TRANSISTOR FP1A3M
Q709	8-729-900-53	TRANSISTOR DTC114EK
Q710	8-729-900-53	TRANSISTOR DTC114EK
Q711	8-729-900-53	TRANSISTOR DTC114EK
Q712	8-729-900-53	TRANSISTOR DTC114EK
Q713	8-729-900-53	TRANSISTOR DTC114EK
Q714	8-729-900-53	TRANSISTOR DTC114EK
Q715	8-729-900-53	TRANSISTOR DTC114EK

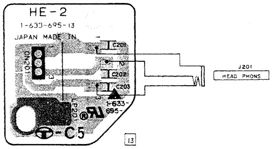
TC-20 BOARD (COMPONENT SIDE)


LED DISPLAY
CN704
CN703
CN702
CN701
TC-20
Q701
D702
D703
D704
1-633-699-13
1-633-699-

TC-20 BOARD (CONDUCTOR SIDE)


CN703
1-633-699-13 TC-20
CN704
Q708
Q706
Q705 Q710 Q704
Q703
Q702
Q712
CN702
Q707
Q715
Q713
CN701
Q711
Q709
Q701
MADE IN JAPAN
1-633-699-

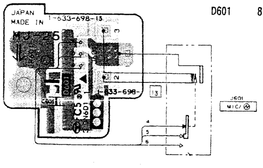
HE-2 BOARD(COMPONENT SIDE)


HE-2
1-633-695-13
JAPAN MADE IN
CN201
C201
C202
C203
J201
HEAD PHONS
1-633-695-

* 1-633-698-11 MJ-25 BOARD
****

(DIODE)

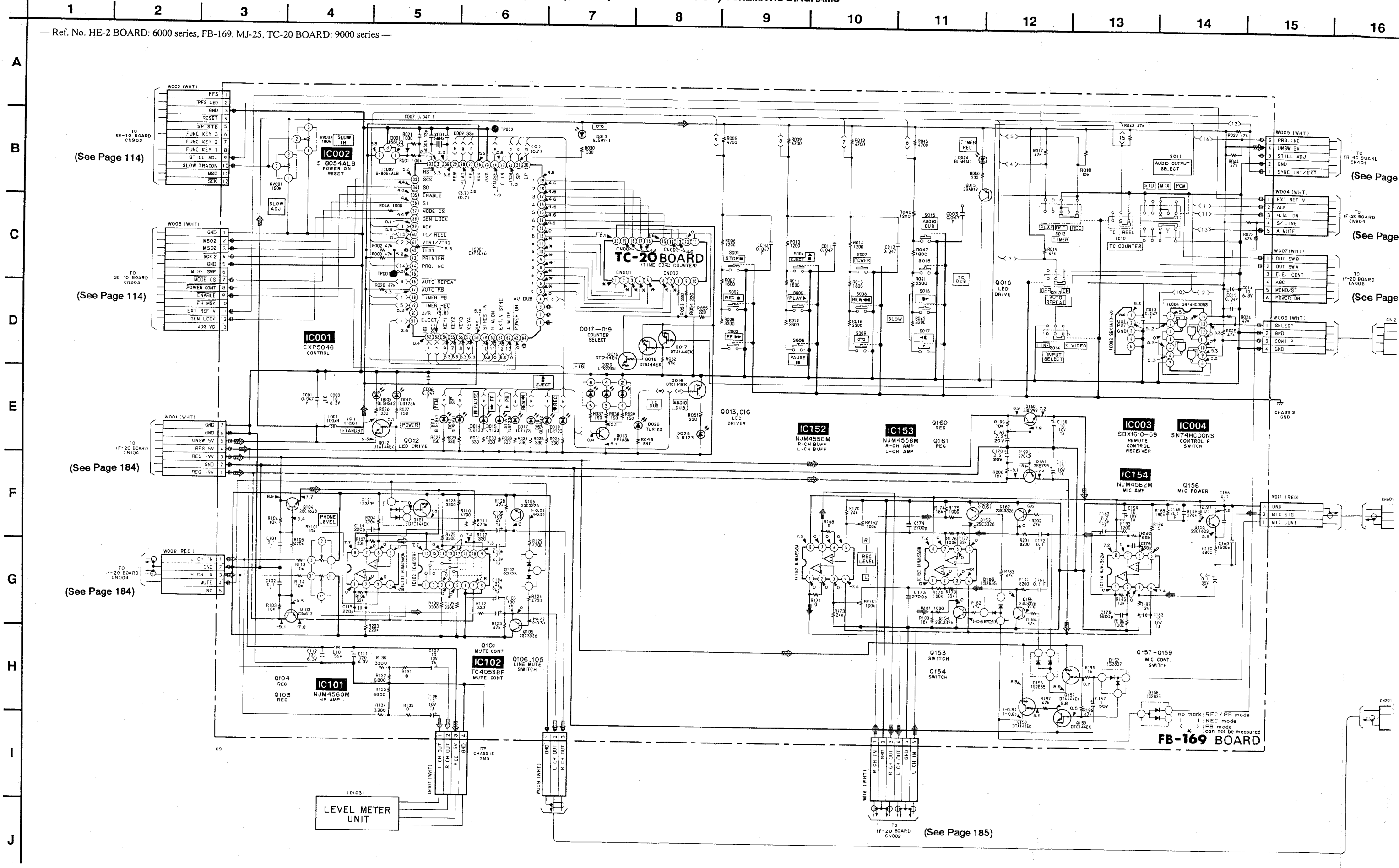
MJ-25 BOARD(CONDUCTOR SIDE)


JAPAN MADE IN
1-633-698-13
D601
CN601
1-633-698-
J601
MIC

D601	8-719-106-80	DIODE RD13M-B1

FB-169 (FUNCTION CONTROL, FUNCTION SWITCH), TC-20 (LED INDICATER), MJ-25 (MIC IN), HE-2 (HEADPHONE OUT) SCHEMATIC DIAGRAMS

— Ref. No. HE-2 BOARD: 6000 series, FB-169, MJ-25, TC-20 BOARD: 9000 series —



1
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4
5
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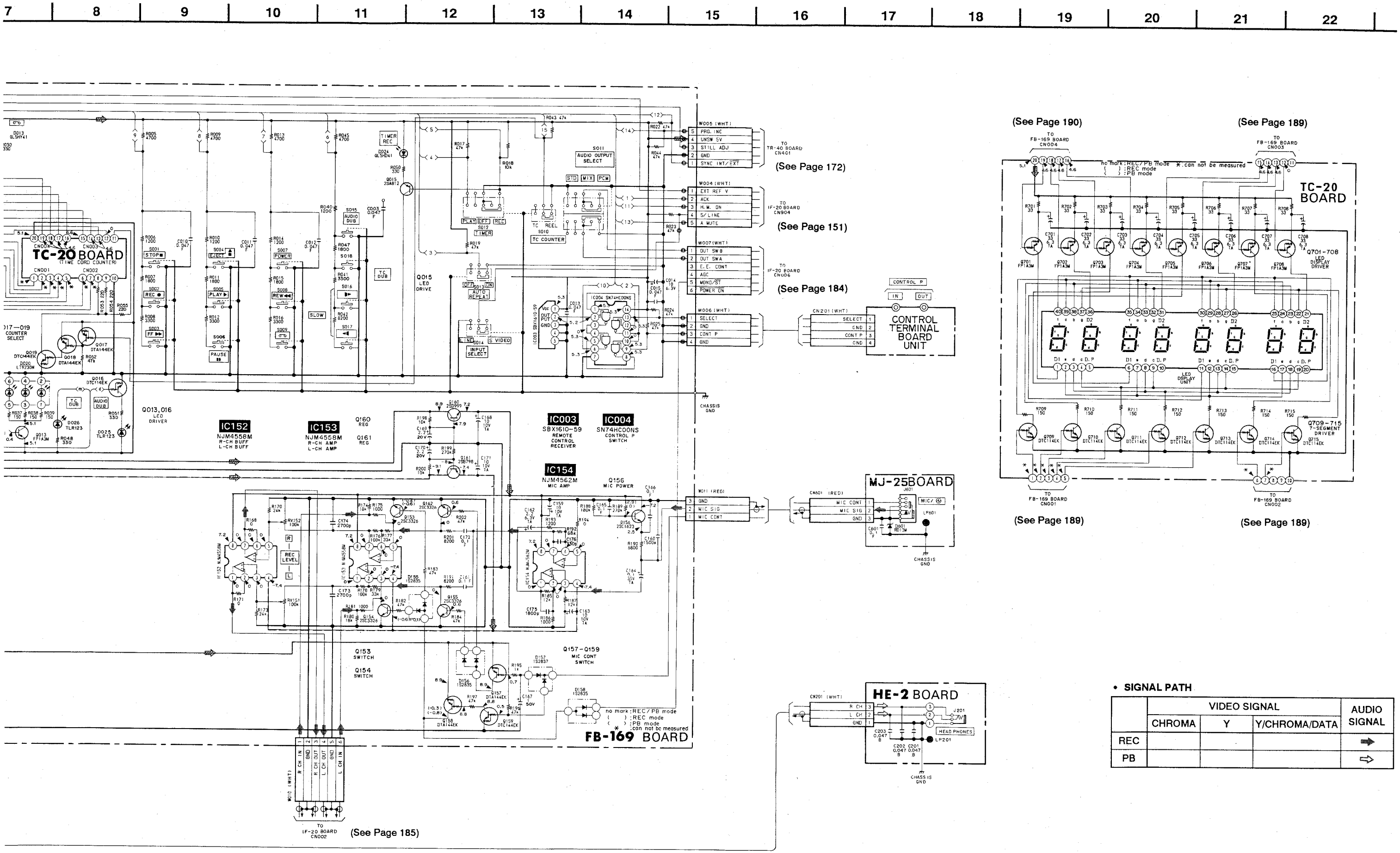
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
W002 (WHT)
PFS
PFS LED
GND
RESET
SP STB
FUNC KEY 3
FUNC KEY 2
FUNC KEY 1
STILL ADJ
SLOW TRACON
MSD
SCK
TO SE-10 BOARD CN902
(See Page 114)
W003 (WHT)
GND
MSO2
MSO2
SCK 2
GND
M RF SWP
MODE CS
POWER CONT
ENABLE
FH MSK
EXT REF V
GEN LOCK
JOG VD
TO SE-10 BOARD CN903
(See Page 114)
W001 (WHT)
GND
GND
UNSW 5V
REG 5V
REG +9V
GND
REG -9V
TO IF-20 BOARD CN104
(See Page 184)
W008 (RED)
L CH IN
GND
R CH IN
MUTE
NC
TO IF-20 BOARD CN004
(See Page 184)
IC002
S-8054ALB
POWER ON RESET
SLOW TR
SLOW ADJ
IC001
CXP5046
CONTROL
TC-20 BOARD
(TIME CORD COUNTER)
Q017-019
COUNTER SELECT
Q012
LED DRIVE
STANDBY
POWER
EJECT
TC DUB
AUDIO DUB
Q013, 016
LED DRIVER
S001 STOP
S002 REC
S003 FF
S004 EJECT
S005 PLAY
S006 PAUSE
S007 POWER
S008 REW
S009
SLOW
S015 AUDIO DUB
S016
S017
S018
TC DUB
TIMER REC
Q015
LED DRIVE
S012 TIMER
PLAY OFF REC
S013 ON
AUTO REPEAT
S014 S VIDEO
INPUT SELECT
LINE
S010 TC COUNTER
TC REEL
S011 AUDIO OUTPUT SELECT
STD MIX PCM
IC004 SN74HC00NS
W005 (WHT)
PRG. INC
UNSW 5V
STILL ADJ
GND
SYNC INT/EXT
TO TR-40 BOARD CN401
(See Page
W004 (WHT)
EXT REF V
ACK
H. M. ON
S/ LINE
A MUTE
TO IF-20 BOARD CN904
(See Page
W007 (WHT)
OUT SWB
OUT SWA
E.E. CONT
AGC
MONO/ST
POWER ON
TO IF-20 BOARD CN006
(See Page
W006 (WHT)
SELECT
GND
CONT P
GND
CHASSIS GND
IC152
NJM4558M
R-CH BUFF
L-CH BUFF
IC153
NJM4558M
R-CH AMP
L-CH AMP
Q160
REG
Q161
REG
IC003
SBX1610-59
REMOTE CONTROL RECEIVER
IC004
SN74HC00NS
CONTROL P SWITCH
IC154
NJM4562M
MIC AMP
Q156
MIC POWER
W011 (RED)
GND
MIC SIG
MIC CONT
PHONE LEVEL
REC LEVEL
Q101
MUTE CONT
IC102
TC4053BF
MUTE CONT
Q106, 105
LINE MUTE SWITCH
Q104
REG
Q103
REG
IC101
NJM4560M
HP AMP
Q153
SWITCH
Q154
SWITCH
Q157-Q159
MIC CONT. SWITCH
no mark : REC/PB mode
( ) : REC mode
〈 〉 : PB mode
* : can not be measured
FB-169 BOARD
CN101 (WHT)
L CH OUT
R CH OUT
VCC 5V
GND
CHASSIS GND
W009 (WHT)
GND
L CH OUT
R CH OUT
W010 (WHT)
R CH IN
GND
R CH OUT
GND
L CH IN
L CH OUT
TO IF-20 BOARD CN002
(See Page 185)
(D103)
LEVEL METER UNIT

E-2 (HEADPHONE OUT) SCHEMATIC DIAGRAMS

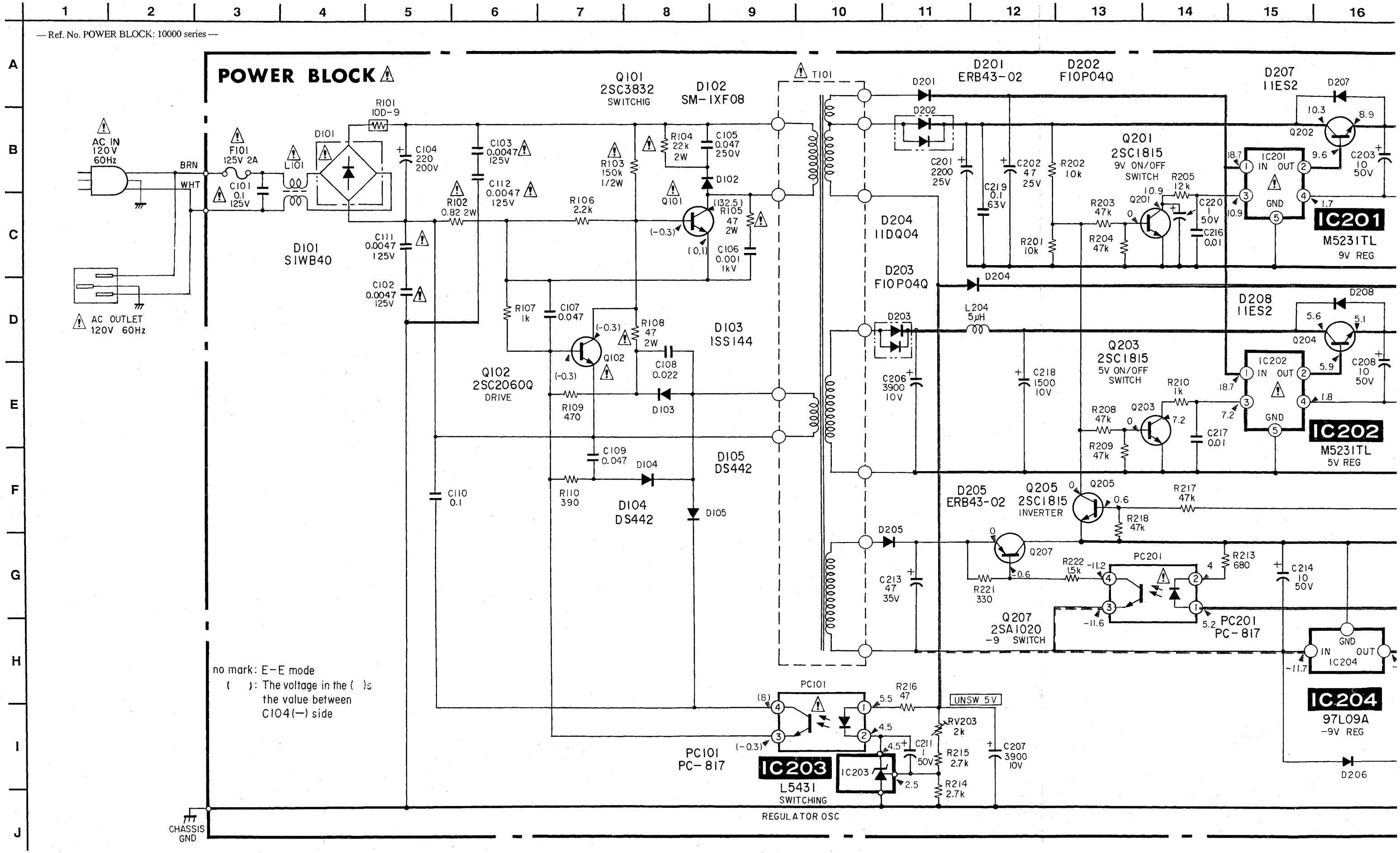

7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
TC-20 BOARD
(TIME CORD COUNTER)
CN004
CN003
CN001
CN002
S001 STOP
S002 REC
S003 FF
S004 EJECT
S005 PLAY
S006 PAUSE
S007 POWER
S008 REW
S009
S015 AUDIO DUB
S016
S017
S018
SLOW
TC DUB
AUDIO DUB
TIMER REC
Q015 LED DRIVE
Q013, 016 LED DRIVER
Q017–019 COUNTER SELECT
S011 AUDIO OUTPUT SELECT
STD
MIX
PCM
S012 TIMER
PLAY
OFF
REC
S010 TC COUNTER
TC
REEL
S013 AUTO REPEAT
OFF
ON
S014 INPUT SELECT
LINE
S VIDEO
IC003 SBX1610-59
IC004 SN74HC00NS
W005 (WHT)
PRG. INC
UNSW 5V
STILL ADJ
GND
SYNC INT/EXT
TO TR-40 BOARD CN401
(See Page 172)
W004 (WHT)
EXT REF V
ACK
H.M. ON
S/LINE
A MUTE
TO IF-20 BOARD CN904
(See Page 151)
W007 (WHT)
OUT SWB
OUT SWA
E.E. CONT
AGC
MONO/ST
POWER ON
TO IF-20 BOARD CN906
(See Page 184)
W006 (WHT)
SELECT
GND
CONT P
GND
CN201 (WHT)
CONTROL P
IN
OUT
CONTROL TERMINAL BOARD UNIT
CHASSIS GND
IC152 NJM4558M R-CH BUFF L-CH BUFF
IC153 NJM4558M R-CH AMP L-CH AMP
Q160 REG
Q161 REG
IC003 SBX1610-59 REMOTE CONTROL RECEIVER
IC004 SN74HC00NS CONTROL P SWITCH
IC154 NJM4562M MIC AMP
Q156 MIC POWER
RV152 REC LEVEL
RV151
R
L
Q153 SWITCH
Q154 SWITCH
Q157–Q159 MIC CONT SWITCH
W001 (RED)
GND
MIC SIG
MIC CONT
CN601 (RED)
MIC CONT
MIC SIG
GND
MJ-25 BOARD
J601
MIC
LP601
D601 RD13M
CHASSIS GND
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode
* : can not be measured
FB-169 BOARD
W010 (WHT)
R CH IN
GND
R CH OUT
L CH OUT
GND
L CH IN
TO IF-20 BOARD CN002
(See Page 185)
CN201 (WHT)
R CH
L CH
GND
HE-2 BOARD
J201
HEAD PHONES
LP201
CHASSIS GND
(See Page 190)
TO FB-169 BOARD CN004
(See Page 189)
TO FB-169 BOARD CN003
TC-20 BOARD
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode
* : can not be measured
Q701–708 LED DISPLAY DRIVER
LED DISPLAY UNIT
Q709–715 7-SEGMENT DRIVER
TO FB-169 BOARD CN001
(See Page 189)
TO FB-169 BOARD CN002
(See Page 189)

- **SIGNAL PATH**

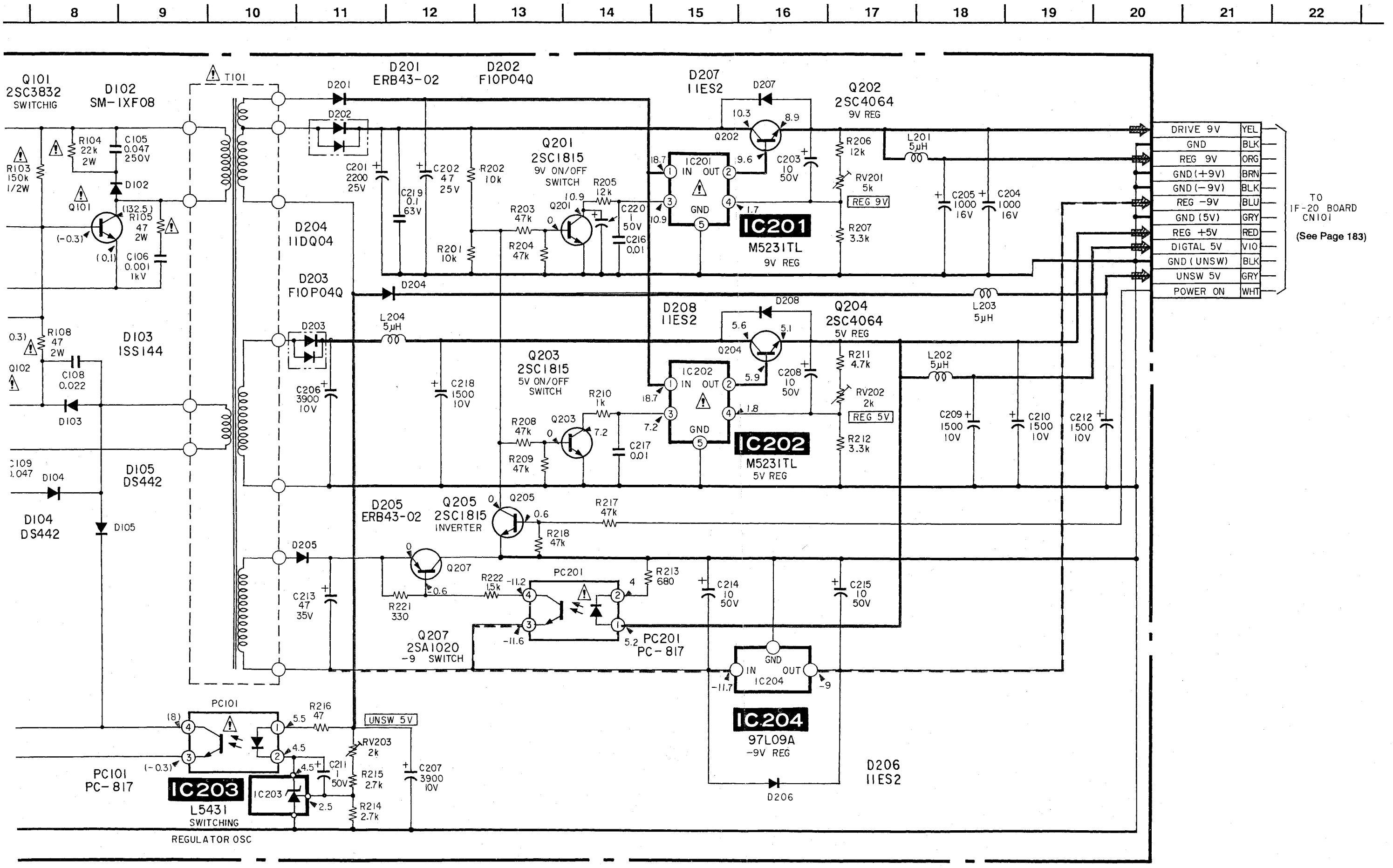
	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC				➡
PB				⇨

POWER BLOCK SCHEMATIC DIAGRAM

— Ref. No. POWER BLOCK: 10000 series —


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
POWER BLOCK
AC IN 120V 60Hz
BRN
WHT
AC OUTLET 120V 60Hz
F101 125V 2A
C101 0.1 125V
L101
D101
D101 S1WB40
R101 10D-9
C104 220 200V
C103 0.0047 125V
C112 0.0047 125V
R102 0.82 2W
C111 0.0047 125V
C102 0.0047 125V
Q101 2SC3832 SWITCHIG
D102 SM-1XF08
R103 150k 1/2W
R104 22k 2W
C105 0.047 250V
D102
R106 2.2k
Q101
(132.5)
R105 47 2W
(-0.3)
(0.1)
C106 0.001 1kV
R107 1k
C107 0.047
(-0.3)
Q102
(-0.3)
R108 47 2W
C108 0.022
D103 1SS144
Q102 2SC2060Q DRIVE
R109 470
D103
C109 0.047
D104
D105 DS442
R110 390
D104 DS442
D105
C110 0.1
T101
D201
D201 ERB43-02
D202 F10P04Q
D202
C201 2200 25V
C202 47 25V
C219 0.1 63V
R202 10k
D204 11DQ04
D203 F10P04Q
D204
D203
L204 5μH
C206 3900 10V
C218 1500 10V
Q201 2SC1815 9V ON/OFF SWITCH
R205 12k
R203 47k
Q201
R201 10k
R204 47k
C220 1 50V
C216 0.01
10.9
0
D207 11ES2
D207
10.3
8.9
Q202
9.6
C203 10 50V
18.7
IC201 IN OUT GND
10.9
1.7
IC201
M5231TL 9V REG
D208 11ES2
D208
5.6
5.1
Q204
C208 10 50V
5.9
Q203 2SC1815 5V ON/OFF SWITCH
R210 1k
18.7
IC202 IN OUT GND
7.2
1.8
R208 47k
Q203
0
7.2
R209 47k
C217 0.01
IC202
M5231TL 5V REG
D205 ERB43-02
Q205 2SC1815 INVERTER
0
Q205
0.6
R217 47k
R218 47k
D205
0
Q207
R213 680
R222 1.5k
-11.2
PC201
4
C214 10 50V
C213 47 35V
R221 330
0.6
-11.6
5.2
PC201 PC-817
Q207 2SA1020 -9 SWITCH
GND IN OUT
IC204
-11.7
IC204
97L09A -9V REG
D206
PC101
(8)
5.5
R216 47
UNSW 5V
RV203 2k
4.5
4.5
C211 1 50V
R215 2.7k
C207 3900 10V
(-0.31)
PC101 PC-817
IC203
IC203
L5431 SWITCHING REGULATOR OSC
2.5
R214 2.7k
CHASSIS GND

no mark: E-E mode
( ): The voltage in the ( )s the value between C104(−) side


8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
Q101
2SC3832
SWITCHIG
D102
SM-1XF08
R104
22k
2W
C105
0.047
250V
R103
150k
1/2W
D102
Q101
(132.5)
R105
47
2W
(-0.3)
(0.1)
C106
0.001
1kV
T101
D201
D201
ERB43-02
D202
F10P04Q
D202
C201
2200
25V
C219
0.1
63V
C202
47
25V
R202
10k
R201
10k
Q201
2SC1815
9V ON/OFF
SWITCH
R205
12k
10.9
Q201
0
R203
47k
R204
47k
C220
1
50V
C216
0.01
D207
11ES2
D207
10.3
8.9
Q202
Q202
2SC4064
9V REG
18.7
IC201
IN
OUT
9.6
10.9
GND
1.7
C203
10
50V
R206
12k
RV201
5k
REG 9V
R207
3.3k
IC201
M5231TL
9V REG
L201
5μH
C205
1000
16V
C204
1000
16V
D204
11DQ04
D203
F10P04Q
D204
L203
5μH
R108
47
2W
(0.3)
Q102
D103
1SS144
C108
0.022
D103
D203
L204
5μH
C206
3900
10V
C218
1500
10V
D208
11ES2
D208
Q204
2SC4064
5V REG
5.6
5.1
Q204
IC202
IN
OUT
18.7
5.9
C208
10
50V
R211
4.7k
RV202
2k
REG 5V
1.8
R212
3.3k
IC202
M5231TL
5V REG
GND
L202
5μH
C209
1500
10V
C210
1500
10V
C212
1500
10V
Q203
2SC1815
5V ON/OFF
SWITCH
R210
1k
Q203
R208
47k
0
7.2
7.2
R209
47k
C217
0.01
C109
0.047
D104
D105
DS442
D104
DS442
D105
D205
ERB43-02
Q205
2SC1815
INVERTER
0
Q205
0.6
R217
47k
R218
47k
D205
0
Q207
0.6
R222
1.5k
-11.2
PC201
4
R213
680
C213
47
35V
R221
330
C214
10
50V
C215
10
50V
-11.6
5.2
PC201
PC-817
Q207
2SA1020
-9 SWITCH
GND
IN
OUT
IC204
-11.7
-9
IC204
97L09A
-9V REG
D206
11ES2
D206
PC101
(8)
5.5
R216
47
UNSW 5V
(-0.3)
4.5
RV203
2k
4.5
C211
1
50V
R215
2.7k
C207
3900
10V
IC203
2.5
R214
2.7k
PC101
PC-817
IC203
L5431
SWITCHING
REGULATOR OSC
DRIVE 9V | YEL
GND | BLK
REG 9V | ORG
GND (+9V) | BRN
GND (-9V) | BLK
REG -9V | BLU
GND (5V) | GRY
REG +5V | RED
DIGTAL 5V | VIO
GND (UNSW) | BLK
UNSW 5V | GRY
POWER ON | WHT
TO
IF-20 BOARD
CN101
(See Page 183)

POWER POWER

POWER BLOCK PRINTED WIRING BOARD

— Ref. No. POWER BLOCK: 10000 series —

1-413-519-11 POWER BLOCK
****

(DIODE)

D101	8-719-500-04	DIODE S1WB40
D102	9-993-709-01	DIODE SM-1FX08
D103	9-993-710-01	DIODE 1SS144
D104	9-993-711-01	DIODE DS442
D105	9-993-711-01	DIODE DS442
D201	8-719-907-40	DIODE ERB43-02
D202	9-993-712-01	DIODE F10P04Q
D203	9-993-712-01	DIODE F10P04Q
D204	8-719-200-29	DIODE 11DQ04
D205	8-719-907-40	DIODE ERB43-02
D206	8-719-200-82	DIODE 11ES2
D207	8-719-200-82	DIODE 11ES2
D208	8-719-200-82	DIODE 11ES2

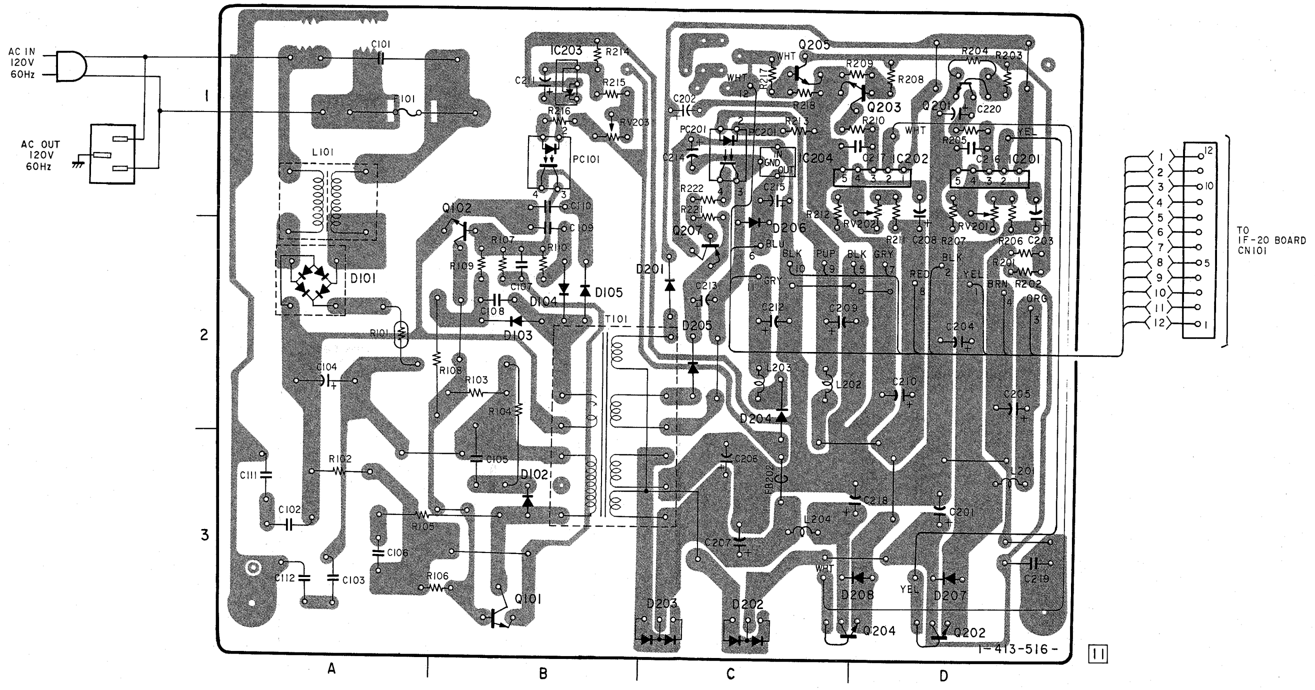
(IC)

IC201	8-759-605-43	IC M5231TL
IC202	8-759-605-43	IC M5231TL
IC203	9-993-714-01	IC L5431
IC204	9-993-707-01	IC 97L09A

(TRANSISTOR)

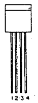
Q101	8-729-303-04	TRANSISTOR 2SC3832
Q102	8-729-906-02	TRANSISTOR 2SC2060Q
Q201	8-729-281-53	TRANSISTOR 2SC1815
Q202	9-993-708-01	TRANSISTOR 2SC4064
Q203	8-729-281-53	TRANSISTOR 2SC1815
Q204	9-993-708-01	TRANSISTOR 2SC4064
Q205	8-729-281-53	TRANSISTOR 2SC1815
Q207	8-729-202-45	TRANSISTOR 2SA1020

POWER BLOCK (CONDUCTOR SIDE)

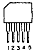

AC IN
120V
60Hz
AC OUT
120V
60Hz
TO
IF-20 BOARD
CN101
C101
F101
L101
D101
R101
C104
C111
R102
C102
C112
C103
C106
R105
R106
Q101
C105
D102
R103
R104
R108
C108
D103
D104
D105
R109
R107
C107
R110
C109
C110
Q102
PC101
IC203
R214
C211
R215
R216
RV203
T101
D201
D205
D204
D203
D202
C206
FB202
C207
L204
C218
C201
C219
L201
C205
C210
C204
C209
C212
C213
Q207
R222
R221
D206
C215
IC204
GND
OUT
PC201
C214
C202
R217
WHT
Q205
R218
R213
R209
R208
Q203
R210
C217
IC202
R212
RV202
R211
C208
R207
RV201
Q201
C220
R204
R203
R205
C216
IC201
R206
C203
R201
R202
YEL
BLU
BLK
PUP
GRY
RED
BRN
ORG
L203
L202
D208
D207
Q204
Q202
1-413-516-
11
A
B
C
D
1
2
3

4-3. SEMICONDUCTORS

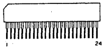
AN607P
AN608P



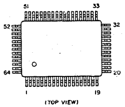
BA401
TA7060AP



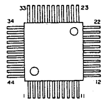
BA7036LS



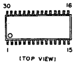
CF77305FT
CXP5024H
CXP5048H-204Q
CXP5048H-205Q
CXP5048H-210Q
μPD75106G-573-1B
μPD75106G-589-1B


51
33
52
32
64
20
1
19
(TOP VIEW)

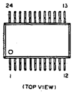
CF77309FR


33
23
34
22
44
12
1
11

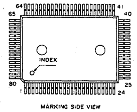
CXA1047M
LB1616M


30
16
1
15
(TOP VIEW)

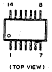
CXA1109M
TA8607F


24
13
1
12
(TOP VIEW)

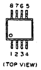
CXP80116-638Q


64
41
65
40
INDEX
80
25
1
24
MARKING SIDE VIEW

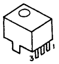
MC14069UBF
MC1496MR
RC3403AM


14
8
1
7
(TOP VIEW)

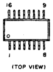
NJM2234M
NJM2238M
NJM2246M
RC3414M


8 7 6 5
1 2 3 4
(TOP VIEW)

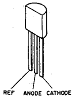
SBX1595-01



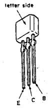
TA7745F


16
9
1
8
(TOP VIEW)

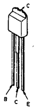
TL431CLP


REF
ANODE
CATHODE

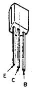
2SA1175-HFE


letter side
E
C
B

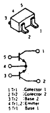
2SA1385-ZL
2SC3518



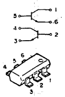
2SC3327-B
DTA144ES



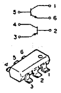
FMG2


5
4
3
6
2
1
1
5
4
3
2
1 Tr1 :Collector 1
2 Tr2 :Collector 2
3 Tr2 :Base 2
4 Tr1,2 :Emitter
5 Tr1 Base 1

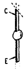
IMX1


5
1
6
4
2
3
6
5
4
1
2
3

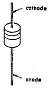
IMZ1


5
1
6
4
2
3
6
5
4
1
2
3

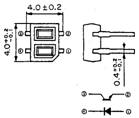
NJL7141E



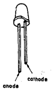
1SS119
RD5.1ESB2
RD5.1ESB3


cathode
anode

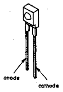
GP2S09-B


4.0±0.2
4.0+0.2 -0.1
0.4+0.2 -0.1
③
①
④
②
③
④
②
①

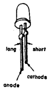
AA3422S


cathode
anode

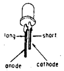
GL-450S


anode
cathode

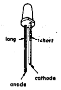
GL-5EG521-B


long
short
cathode
anode

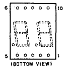
GL-5HD21
GL-5HY41


long
short
anode
cathode

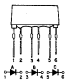
GL-5HS42
GL-5HY42


long
short
cathode
anode

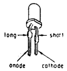
LB-202DB


6
10
5
1
(BOTTOM VIEW)

LT-9230D


1 2 3 4 5 6
A
B
C
1 2 3 4 5 6

SLP281C-50
TLR123
TLY123


long
short
anode
cathode

Ref. No.	Part No.	Description				Remark
C742	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C743	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C744	1-124-589-11	ELECT	47uF	20%	16V	
C745	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C746	1-126-157-11	ELECT	10uF	20%	16V	
C747	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C748	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C749	1-126-157-11	ELECT	10uF	20%	16V	
C750	1-126-157-11	ELECT	10uF	20%	16V	
C752	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C753	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C754	1-124-589-11	ELECT	47uF	20%	16V	
C755	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
C756	1-126-157-11	ELECT	10uF	20%	16V	
C757	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C758	1-124-584-00	ELECT	100uF	20%	10V	
C801	1-126-163-11	ELECT	4.7uF	20%	50V	
C802	1-126-163-11	ELECT	4.7uF	20%	50V	
C803	1-124-584-00	ELECT	100uF	20%	10V	
C804	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C805	1-126-163-11	ELECT	4.7uF	20%	50V	
C806	1-124-584-00	ELECT	100uF	20%	10V	
C807	1-124-584-00	ELECT	100uF	20%	10V	
C808	1-126-163-11	ELECT	4.7uF	20%	50V	
C809	1-135-155-21	TANTALUM CHIP	4.7uF	10%	10V	
C810	1-135-155-21	TANTALUM CHIP	4.7uF	10%	10V	
C811	1-124-584-00	ELECT	100uF	20%	10V	
C812	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C813	1-135-155-21	TANTALUM CHIP	4.7uF	10%	10V	
C814	1-124-584-00	ELECT	100uF	20%	10V	
C815	1-124-584-00	ELECT	100uF	20%	10V	
C816	1-135-155-21	TANTALUM CHIP	4.7uF	10%	10V	
C817	1-124-584-00	ELECT	100uF	20%	10V	
C901	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C902	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C903	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V	
C904	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V	
C905	1-124-465-00	ELECT	0.47uF	20%	50V	
C906	1-126-162-11	ELECT	3.3uF	20%	50V	
C907	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C908	1-126-154-11	ELECT	47uF	20%	6.3V	
C909	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C910	1-126-157-11	ELECT	10uF	20%	16V	
C911	1-126-157-11	ELECT	10uF	20%	16V	
		(CONNECTOR)				
CN001	1-506-475-11	CONNECTOR 10P, MALE				
CN002	1-506-471-11	CONNECTOR 6P, MALE				
CN004	1-506-470-11	CONNECTOR 5P, MALE				
CN005	1-506-473-11	CONNECTOR 8P, MALE				
CN006	1-506-471-11	CONNECTOR 6P, MALE				
CN007	1-506-474-11	CONNECTOR 9P, MALE				
CN008	1-506-471-11	CONNECTOR 6P, MALE				
CN101	* 1-560-900-00	PIN, CONNECTOR 12P				
CN102	1-506-477-11	CONNECTOR 12P, MALE				
CN103	1-506-468-11	CONNECTOR 3P, MALE				
CN104	1-506-472-11	CONNECTOR 7P, MALE				
CN901	1-506-470-11	CONNECTOR 5P, MALE				
CN902	1-506-472-11	CONNECTOR 7P, MALE				
CN903	1-506-471-11	CONNECTOR 6P, MALE				
CN904	1-506-470-11	CONNECTOR 5P, MALE				
CN905	1-506-473-11	CONNECTOR 8P, MALE				
CN906	1-506-472-11	CONNECTOR 7P, MALE				
CN911	1-506-467-11	CONNECTOR 2P, MALE				
		(DIODE)				
D001	8-719-104-34	DIODE 1S2836				
D002	8-719-104-34	DIODE 1S2836				
D003	8-719-104-34	DIODE 1S2836				
D004	8-719-104-34	DIODE 1S2836				
D010	8-719-800-76	DIODE 1SS226				
D051	8-719-104-34	DIODE 1S2836				
D052	8-719-104-34	DIODE 1S2836				
D053	8-719-104-34	DIODE 1S2836				
D054	8-719-104-34	DIODE 1S2836				
D060	8-719-800-76	DIODE 1SS226				
D165	8-719-400-18	DIODE MA152WK				
D166	8-719-400-18	DIODE MA152WK				
D167	8-719-800-76	DIODE 1SS226				
D168	8-719-800-76	DIODE 1SS226				
D169	8-719-800-76	DIODE 1SS226				
D170	8-719-800-76	DIODE 1SS226				
D171	8-719-104-34	DIODE 1S2836				
D201	8-719-800-76	DIODE 1SS226				

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Ref. No.	Part No.	Description	Remark
D901	8-719-400-18	DIODE MA152WK	
D902	8-719-400-18	DIODE MA152WK	
D903	8-719-104-34	DIODE 1S2836	
D904	8-719-400-18	DIODE MA152WK	
		(DELAY LINE)	
DL201	1-415-342-00	DELAY LINE, 1H	
DL202	1-415-342-00	DELAY LINE, 1H	
		(FUSE)	
F101	⚠ 1-532-777-21	FUSE, MICRO (SECONDARY) (1.25A 125V)	
F102	⚠ 1-532-775-11	FUSE, MICRO (SECONDARY) (0.8A 125V)	
F103	⚠ 1-532-773-21	FUSE, MICRO (SECONDARY) (0.8A 125V)	
F104	⚠ 1-532-776-21	FUSE, MICRO (SECONDARY) (1A 125V)	
F105	⚠ 1-532-776-21	FUSE, MICRO (SECONDARY) (1A 125V)	
F106	⚠ 1-532-773-21	FUSE, MICRO (SECONDARY) (0.5A 125V)	
F107	⚠ 1-532-775-11	FUSE, MICRO (SECONDARY) (0.8A 125V)	
F108	⚠ 1-532-773-21	FUSE, MICRO (SECONDARY) (0.5A 125V)	
F109	⚠ 1-532-773-21	FUSE, MICRO (SECONDARY) (0.5A 125V)	
		(HOURS METER)	
FC901	1-548-119-21	HOURS METER	
		(FILTER)	
FL331	1-236-564-11	FILTER, LOW PASS	
FL332	1-235-779-11	LPF	
FL333	1-236-563-11	FILTER, BAND PASS	
FL401	1-415-647-11	DELAY LINE, LC 250NS	
FL501	1-415-637-11	DELAY LINE, LC 150NS	
FL502	1-415-637-11	DELAY LINE, LC 150NS	
FL503	1-415-637-11	DELAY LINE, LC 150NS	
FL701	1-415-551-11	DELAY LINE 140NS	
FL702	1-415-551-11	DELAY LINE 140NS	
FL703	1-415-551-11	DELAY LINE 140NS	
FL704	1-415-551-11	DELAY LINE 140NS	
FL705	1-235-617-11	FILTER, LOW-PASS 1MHz	
		(IC)	
IC001	8-759-981-92	IC RC4558M	
IC003	8-759-981-92	IC RC4558M	
IC004	8-759-981-92	IC RC4558M	

Ref. No.	Part No.	Description	Remark
IC005	8-759-932-64	IC BU4052BF	
IC006	8-759-981-92	IC RC4558M	
IC051	8-759-981-92	IC RC4558M	
IC054	8-759-981-92	IC RC4558M	
IC055	8-759-932-64	IC BU4052BF	
IC056	8-759-981-92	IC RC4558M	
IC165	8-759-200-67	IC TC4001BF	
IC201	8-759-030-55	IC MC1496MR	
IC202	8-759-030-55	IC MC1496MR	
IC331	8-759-710-62	IC NJM2246M	
IC332	8-759-710-62	IC NJM2246M	
IC333	8-759-710-09	IC NJM2233AM	
IC401	8-759-711-71	IC NJM2234M	
IC402	8-759-711-71	IC NJM2234M	
IC601	8-759-200-60	IC TA7060AP	
IC602	8-759-200-60	IC TA7060AP	
IC603	8-759-400-06	IC AN608P	
IC701	8-759-200-60	IC TA7060AP	
IC702	8-759-402-33	IC AN607P	
IC703	8-752-201-30	IC CX22013	
IC704	8-759-969-13	IC SN16913P	
IC705	8-759-101-12	IC uPC311G2	
IC801	8-752-009-51	IC CX20095A	
IC802	8-752-009-51	IC CX20095A	
IC901	8-759-009-10	IC MC14069UBF	
IC902	8-759-009-10	IC MC14069UBF	
IC903	8-759-100-93	IC uPC393G2	
		(COIL)	
L201	1-408-979-21	INDUCTOR 56uH	
L202	1-408-972-21	INDUCTOR 15uH	
L203	1-408-979-21	INDUCTOR 56uH	
L204	1-408-973-21	INDUCTOR 18uH	
L205	1-408-974-21	INDUCTOR 22uH	
L206	1-408-976-21	INDUCTOR 33uH	
L207	1-408-972-21	INDUCTOR 15uH	
L208	1-408-979-21	INDUCTOR 56uH	
L209	1-408-980-21	INDUCTOR 68uH	
L210	1-408-979-21	INDUCTOR 56uH	
L211	1-408-984-21	INDUCTOR 150uH	
L212	1-408-972-21	INDUCTOR 15uH	
L213	1-408-973-21	INDUCTOR 18uH	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
C254	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C255	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C256	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C257	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C258	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C259	1-126-154-11	ELECT	47uF	20%	6.3V
C260	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C261	1-126-154-11	ELECT	47uF	20%	6.3V
C263	1-126-154-11	ELECT	47uF	20%	6.3V
C264	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C265	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C330	1-126-162-11	ELECT	3.3uF	20%	50V
C331	1-126-157-11	ELECT	10uF	20%	16V
C332	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C333	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C334	1-124-584-00	ELECT	100uF	20%	10V
C335	1-124-584-00	ELECT	100uF	20%	10V
C336	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C337	1-124-584-00	ELECT	100uF	20%	10V
C339	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C340	1-126-153-11	ELECT	22uF	20%	6.3V
C344	1-126-154-11	ELECT	47uF	20%	6.3V
C345	1-126-157-11	ELECT	10uF	20%	16V
C346	1-126-153-11	ELECT	22uF	20%	6.3V
C350	1-126-154-11	ELECT	47uF	20%	6.3V
C351	1-126-157-11	ELECT	10uF	20%	16V
C352	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C353	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C354	1-126-154-11	ELECT	47uF	20%	6.3V
C355	1-126-153-11	ELECT	22uF	20%	6.3V
C356	1-126-157-11	ELECT	10uF	20%	16V
C357	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C358	1-126-154-11	ELECT	47uF	20%	6.3V
C359	1-126-157-11	ELECT	10uF	20%	16V
C360	1-126-157-11	ELECT	10uF	20%	16V
C361	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C362	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C363	1-126-154-11	ELECT	47uF	20%	6.3V
C364	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C365	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C369	1-126-157-11	ELECT	10uF	20%	16V
C370	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C371	1-126-154-11	ELECT	47uF	20%	6.3V
C372	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C373	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C401	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C402	1-126-154-11	ELECT	47uF	20%	6.3V
C404	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C406	1-126-154-11	ELECT	47uF	20%	6.3V
C407	1-124-229-00	ELECT	33uF	20%	10V
C408	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C409	1-126-154-11	ELECT	47uF	20%	6.3V
C410	1-124-229-00	ELECT	33uF	20%	10V
C411	1-126-154-11	ELECT	47uF	20%	6.3V
C412	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C413	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C414	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C415	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C416	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C418	1-126-157-11	ELECT	10uF	20%	16V
C419	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C421	1-126-157-11	ELECT	10uF	20%	16V
C422	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C423	1-126-154-11	ELECT	47uF	20%	6.3V
C424	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C425	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C426	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C427	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C428	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C429	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C501	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C502	1-124-589-11	ELECT	47uF	20%	16V
C503	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C504	1-124-584-00	ELECT	100uF	20%	10V
C505	1-163-091-00	CERAMIC CHIP	8PF		50V
C506	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C507	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C508	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C509	1-124-589-11	ELECT	47uF	20%	16V
C510	1-163-091-00	CERAMIC CHIP	8PF		50V
C511	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C512	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C513	1-163-109-00	CERAMIC CHIP	47PF	5%	50V

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Ref. No.	Part No.	Description			Remark
C514	1-124-589-11	ELECT	47uF	20%	16V
C515	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C516	1-126-157-11	ELECT	10uF	20%	16V
C517	1-124-584-00	ELECT	100uF	20%	10V
C518	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C519	1-163-091-00	CERAMIC CHIP	8PF		50V
C520	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C521	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C522	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C523	1-124-589-11	ELECT	47uF	20%	16V
C524	1-124-589-11	ELECT	47uF	20%	16V
C525	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C526	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C527	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C601	1-124-589-11	ELECT	47uF	20%	16V
C602	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C603	1-124-589-11	ELECT	47uF	20%	16V
C604	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C605	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C606	1-126-157-11	ELECT	10uF	20%	16V
C607	1-126-157-11	ELECT	10uF	20%	16V
C608	1-126-157-11	ELECT	10uF	20%	16V
C609	1-124-584-00	ELECT	100uF	20%	10V
C610	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C611	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C612	1-124-589-11	ELECT	47uF	20%	16V
C613	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C614	1-126-157-11	ELECT	10uF	20%	16V
C615	1-124-589-11	ELECT	47uF	20%	16V
C616	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C617	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C618	1-126-157-11	ELECT	10uF	20%	16V
C619	1-126-157-11	ELECT	10uF	20%	16V
C620	1-126-157-11	ELECT	10uF	20%	16V
C621	1-126-157-11	ELECT	10uF	20%	16V
C622	1-124-234-00	ELECT	22uF	20%	16V
C623	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C624	1-126-157-11	ELECT	10uF	20%	16V
C627	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C628	1-126-157-11	ELECT	10uF	20%	16V
C629	1-126-157-11	ELECT	10uF	20%	16V
C631	1-126-157-11	ELECT	10uF	20%	16V

Ref. No.	Part No.	Description			Remark
C632	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C633	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C634	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C701	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C702	1-124-589-11	ELECT	47uF	20%	16V
C703	1-164-633-11	CERAMIC CHIP	0.1uF	10%	25V
C704	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C705	1-124-589-11	ELECT	47uF	20%	16V
C708	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C709	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C710	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C711	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C712	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C713	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C714	1-124-234-00	ELECT	22uF	20%	16V
C715	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C716	1-126-157-11	ELECT	10uF	20%	16V
C718	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C719	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C720	1-124-589-11	ELECT	47uF	20%	16V
C721	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C722	1-124-589-11	ELECT	47uF	20%	16V
C723	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C724	1-163-088-00	CERAMIC CHIP	5PF		50V
C725	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C726	1-124-584-00	ELECT	100uF	20%	10V
C727	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C728	1-124-472-11	ELECT	470uF	20%	10V
C729	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C730	1-126-157-11	ELECT	10uF	20%	16V
C731	1-124-589-11	ELECT	47uF	20%	16V
C732	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C733	1-126-157-11	ELECT	10uF	20%	16V
C734	1-124-589-11	ELECT	47uF	20%	16V
C735	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C736	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C737	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C738	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C739	1-126-157-11	ELECT	10uF	20%	16V
C740	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C741	1-124-234-00	ELECT	22uF	20%	16V

Ref. No.	Part No.	Description	Remark
R831	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R832	1-216-047-00	METAL CHIP 820 5% 1/10W	
R833	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R834	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R835	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R836	1-216-295-00	METAL CHIP 0 5% 1/10W	
R837	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R838	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R851	1-216-748-11	METAL CHIP 39K 5% 1/10W	
R852	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R853	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R854	1-216-041-00	METAL CHIP 470 5% 1/10W	
R856	1-216-639-11	METAL CHIP 330 0.5% 1/10W	
R857	1-216-639-11	METAL CHIP 330 0.5% 1/10W	
R858	1-216-038-00	METAL CHIP 360 5% 1/10W	
R859	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R860	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R861	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R862	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R901	1-216-047-00	METAL CHIP 820 5% 1/10W	
R902	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R903	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R904	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R905	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R907	1-216-041-00	METAL CHIP 470 5% 1/10W	
R910	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R911	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R912	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R913	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R914	1-216-089-00	METAL CHIP 47K 5% 1/10W	
		〈 VARIABLE RESISTOR 〉	
RV101	1-230-870-11	RES, ADJ, METAL 10K	
RV201	1-230-868-11	RES, ADJ, METAL 2.2K	
RV202	1-230-867-11	RES, ADJ, METAL 1K	
RV299	1-230-873-11	RES, ADJ, METAL 47K	
RV301	1-230-868-11	RES, ADJ, METAL 2.2K	
RV302	1-230-870-11	RES, ADJ, METAL 10K	
RV303	1-230-870-11	RES, ADJ, METAL 10K	
RV304	1-230-870-11	RES, ADJ, METAL 10K	
RV305	1-230-875-21	RES, ADJ, METAL 220K	
RV401	1-230-873-11	RES, ADJ, METAL 47K	
RV402	1-230-869-11	RES, ADJ, METAL 4.7K	
RV403	1-230-868-11	RES, ADJ, METAL 2.2K	
RV404	1-230-868-11	RES, ADJ, METAL 2.2K	
RV405	1-230-866-11	RES, ADJ, METAL 470	
RV501	1-230-870-11	RES, ADJ, METAL 10K	
RV502	1-230-870-11	RES, ADJ, METAL 10K	
RV503	1-230-876-11	RES, ADJ, METAL 470K	
RV601	1-230-871-11	RES, ADJ, METAL 22K	
RV602	1-230-870-11	RES, ADJ, METAL 10K	
RV701	1-230-866-11	RES, ADJ, METAL 470	
RV702	1-230-866-11	RES, ADJ, METAL 470	
RV801	1-230-866-11	RES, ADJ, METAL 470	
RV802	1-230-866-11	RES, ADJ, METAL 470	
		〈 COIL 〉	
T101	1-409-466-21	TRAP	
T501	1-235-397-11	PB C BPF	
T601	1-409-396-11	REC C TRAP	
T602	1-409-386-11	C E TRAP	
		〈 CRYSTAL 〉	
X501	1-567-303-11	RESONATOR, CERAMIC (10.7MHz)	
X601	1-567-505-11	OSCILLATOR, CRYSTAL (3.58MHz)	
X602	1-567-735-11	CRYSTAL (5.9MHz)	

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* A-7062-009-A IF-20 BOARD, COMPLETE

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* 1-533-189-11 HOLDER, FUSE

〈 CAPACITOR 〉

Ref. No.	Part No.	Description	Remark
C001	1-124-234-00	ELECT 22uF 20% 16V	
C002	1-163-125-00	CERAMIC CHIP 220PF 5% 50V	
C003	1-124-234-00	ELECT 22uF 20% 16V	
C004	1-124-234-00	ELECT 22uF 20% 16V	
C007	1-124-234-00	ELECT 22uF 20% 16V	
C009	1-124-584-00	ELECT 100uF 20% 10V	
C010	1-124-584-00	ELECT 100uF 20% 10V	
C011	1-124-584-00	ELECT 100uF 20% 10V	
C012	1-124-584-00	ELECT 100uF 20% 10V	
C013	1-124-584-00	ELECT 100uF 20% 10V	

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Ref. No.	Part No.	Description			Remark
C014	1-124-234-00	ELECT	22uF	20%	16V
C015	1-124-234-00	ELECT	22uF	20%	16V
C016	1-124-234-00	ELECT	22uF	20%	16V
C017	1-124-584-00	ELECT	100uF	20%	10V
C018	1-124-234-00	ELECT	22uF	20%	16V
C021	1-124-584-00	ELECT	100uF	20%	10V
C022	1-124-234-00	ELECT	22uF	20%	16V
C023	1-126-162-11	ELECT	3.3uF	20%	50V
C051	1-124-234-00	ELECT	22uF	20%	16V
C052	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C053	1-124-234-00	ELECT	22uF	20%	16V
C054	1-124-234-00	ELECT	22uF	20%	16V
C057	1-124-234-00	ELECT	22uF	20%	16V
C059	1-124-584-00	ELECT	100uF	20%	10V
C060	1-124-584-00	ELECT	100uF	20%	10V
C061	1-124-584-00	ELECT	100uF	20%	10V
C062	1-124-584-00	ELECT	100uF	20%	10V
C063	1-124-584-00	ELECT	100uF	20%	10V
C064	1-124-234-00	ELECT	22uF	20%	16V
C065	1-124-234-00	ELECT	22uF	20%	16V
C066	1-124-234-00	ELECT	22uF	20%	16V
C067	1-124-234-00	ELECT	22uF	20%	16V
C081	1-124-584-00	ELECT	100uF	20%	10V
C082	1-124-234-00	ELECT	22uF	20%	16V
C083	1-126-162-11	ELECT	3.3uF	20%	50V
C165	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C166	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C167	1-126-162-11	ELECT	3.3uF	20%	50V
C168	1-124-234-00	ELECT	22uF	20%	16V
C170	1-124-472-11	ELECT	470uF	20%	10V
C171	1-124-584-00	ELECT	100uF	20%	10V
C172	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C173	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C201	1-126-154-11	ELECT	47uF	20%	6.3V
C202	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C203	1-126-157-11	ELECT	10uF	20%	16V
C204	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C205	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C206	1-124-584-00	ELECT	100uF	20%	10V
C207	1-126-153-11	ELECT	22uF	20%	6.3V
C208	1-126-369-11	ELECT	220uF	20%	6.3V
C209	1-163-106-00	CERAMIC CHIP	36PF	5%	50V
C210	1-163-107-00	CERAMIC CHIP	39PF	5%	50V
C211	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C212	1-126-153-11	ELECT	22uF	20%	6.3V
C213	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C214	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C215	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C216	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C217	1-126-154-11	ELECT	47uF	20%	6.3V
C219	1-126-154-11	ELECT	47uF	20%	6.3V
C220	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C221	1-126-153-11	ELECT	22uF	20%	6.3V
C222	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C223	1-126-153-11	ELECT	22uF	20%	6.3V
C224	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C225	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C226	1-126-153-11	ELECT	22uF	20%	6.3V
C227	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C228	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C229	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C230	1-164-633-11	CERAMIC CHIP	0.1uF	10%	25V
C231	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C232	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C233	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C234	1-126-153-11	ELECT	22uF	20%	6.3V
C235	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C236	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C237	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C238	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C240	1-126-163-11	ELECT	4.7uF	20%	50V
C241	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C242	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C243	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C244	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C245	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C246	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C247	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C248	1-126-154-11	ELECT	47uF	20%	6.3V
C249	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C250	1-126-163-11	ELECT	4.7uF	20%	50V
C251	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C252	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C253	1-164-232-11	CERAMIC CHIP	0.01uF		50V

Ref. No.	Part No.	Description				Remark
R484	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R485	1-216-295-00	METAL CHIP	0	5%	1/10W	
R488	1-216-295-00	METAL CHIP	0	5%	1/10W	
R501	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R502	1-218-155-11	METAL GLAZE	3.9K	1%	1/10W	
R503	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R504	1-216-596-11	METAL GLAZE	2.7K	1%	1/10W	
R505	1-218-150-11	METAL GLAZE	1.2K	1%	1/10W	
R506	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R507	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R508	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R509	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R510	1-218-132-11	METAL GLAZE	4.7K	1%	1/10W	
R511	1-216-647-11	METAL CHIP	680	0.5%	1/10W	
R512	1-218-132-11	METAL GLAZE	4.7K	1%	1/10W	
R513	1-218-144-11	METAL GLAZE	560	1%	1/10W	
R514	1-216-542-11	METAL CHIP	12K	1%	1/10W	
R515	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R516	1-216-518-00	METAL GLAZE	2.2K	1%	1/10W	
R517	1-218-140-11	METAL GLAZE	390	1%	1/10W	
R519	1-216-295-00	METAL CHIP	0	5%	1/10W	
R520	1-216-035-00	METAL CHIP	270	5%	1/10W	
R521	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R522	1-216-748-11	METAL CHIP	39K	5%	1/10W	
R523	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R524	1-216-117-00	METAL CHIP	680K	5%	1/10W	
R525	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R526	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R527	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R528	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R529	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R530	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R531	1-216-629-11	METAL CHIP	120	0.5%	1/10W	
R532	1-216-617-11	METAL CHIP	39	1%	1/10W	
R533	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R534	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R535	1-216-641-11	METAL CHIP	390	0.5%	1/10W	
R536	1-216-633-11	METAL CHIP	180	0.5%	1/10W	
R537	1-216-645-11	METAL CHIP	560	0.5%	1/10W	
R538	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R539	1-216-081-00	METAL CHIP	22K	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R540	1-216-295-00	METAL CHIP	0	5%	1/10W	
R601	1-216-295-00	METAL CHIP	0	5%	1/10W	
R602	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R603	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R604	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R605	1-216-723-11	METAL GLAZE	5.6K	1%	1/10W	
R606	1-216-334-11	METAL GLAZE	22K	1%	1/10W	
R607	1-218-132-11	METAL GLAZE	4.7K	1%	1/10W	
R609	1-216-103-00	METAL CHIP	180K	5%	1/10W	
R610	1-216-295-00	METAL CHIP	0	5%	1/10W	
R612	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R613	1-218-152-11	METAL GLAZE	1.5K	1%	1/10W	
R614	1-218-132-11	METAL GLAZE	4.7K	1%	1/10W	
R615	1-216-542-11	METAL CHIP	12K	1%	1/10W	
R616	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R617	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R619	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R620	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R621	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R622	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R623	1-216-295-00	METAL CHIP	0	5%	1/10W	
R624	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R625	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	
R626	1-216-295-00	METAL CHIP	0	5%	1/10W	
R627	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R628	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R629	1-218-132-11	METAL GLAZE	4.7K	1%	1/10W	
R630	1-218-155-11	METAL GLAZE	3.9K	1%	1/10W	
R631	1-216-596-11	METAL GLAZE	2.7K	1%	1/10W	
R632	1-218-144-11	METAL GLAZE	560	1%	1/10W	
R633	1-216-518-00	METAL GLAZE	2.2K	1%	1/10W	
R634	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R635	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R636	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R637	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R638	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R639	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R640	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R641	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R642	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R644	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R645	1-216-073-00	METAL CHIP	10K	5%	1/10W	

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Ref. No.	Part No.	Description				Remark
R646	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R647	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R648	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R649	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R650	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R651	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R652	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R653	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R654	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R655	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R656	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R657	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R658	1-216-039-00	METAL CHIP	390	5%	1/10W	
R659	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R660	1-216-115-00	METAL CHIP	560K	5%	1/10W	
R661	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R662	1-216-542-11	METAL CHIP	12K	1%	1/10W	
R663	1-218-132-11	METAL GLAZE	4.7K	1%	1/10W	
R664	1-218-152-11	METAL GLAZE	1.5K	1%	1/10W	
R701	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R702	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R703	1-216-129-00	METAL CHIP	2.2M	5%	1/10W	
R704	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R705	1-216-129-00	METAL CHIP	2.2M	5%	1/10W	
R706	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R707	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R708	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R709	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R710	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R711	1-216-629-11	METAL CHIP	120	0.5%	1/10W	
R712	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R713	1-218-132-11	METAL GLAZE	4.7K	1%	1/10W	
R714	1-216-324-11	METAL GLAZE	10K	1%	1/10W	
R715	1-216-039-00	METAL CHIP	390	5%	1/10W	
R716	1-216-033-00	METAL CHIP	220	5%	1/10W	
R717	1-216-039-00	METAL CHIP	390	5%	1/10W	
R718	1-216-039-00	METAL CHIP	390	5%	1/10W	
R719	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R720	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R721	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R722	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R723	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R724	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R725	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R726	1-216-025-00	METAL CHIP	100	5%	1/10W	
R727	1-216-041-00	METAL CHIP	470	5%	1/10W	
R728	1-216-039-00	METAL CHIP	390	5%	1/10W	
R729	1-216-295-00	METAL CHIP	0	5%	1/10W	
R730	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R731	1-216-047-00	METAL CHIP	820	5%	1/10W	
R732	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R733	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R734	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R735	1-216-295-00	METAL CHIP	0	5%	1/10W	
R736	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R801	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R802	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R803	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R804	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R805	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R806	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R807	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R808	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R809	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R810	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R811	1-216-629-11	METAL CHIP	120	0.5%	1/10W	
R812	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R813	1-218-132-11	METAL GLAZE	4.7K	1%	1/10W	
R814	1-216-324-11	METAL GLAZE	10K	1%	1/10W	
R815	1-216-039-00	METAL CHIP	390	5%	1/10W	
R816	1-216-029-00	METAL CHIP	150	5%	1/10W	
R817	1-216-039-00	METAL CHIP	390	5%	1/10W	
R818	1-216-042-00	METAL CHIP	510	5%	1/10W	
R819	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R820	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R821	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R822	1-216-119-00	METAL CHIP	820K	5%	1/10W	
R823	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R824	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R825	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R827	1-216-025-00	METAL CHIP	100	5%	1/10W	
R828	1-216-041-00	METAL CHIP	470	5%	1/10W	
R829	1-216-025-00	METAL CHIP	100	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R240	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R241	1-216-041-00	METAL CHIP	470	5%	1/10W	
R242	1-216-295-00	METAL CHIP	0	5%	1/10W	
R243	1-216-041-00	METAL CHIP	470	5%	1/10W	
R244	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R245	1-216-043-00	METAL CHIP	560	5%	1/10W	
R247	1-216-041-00	METAL CHIP	470	5%	1/10W	
R251	1-216-043-00	METAL CHIP	560	5%	1/10W	
R252	1-216-033-00	METAL CHIP	220	5%	1/10W	
R253	1-216-041-00	METAL CHIP	470	5%	1/10W	
R297	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R298	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R299	1-216-602-11	METAL GLAZE	6.8K	1%	1/10W	
R301	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R302	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R303	1-216-518-00	METAL GLAZE	2.2K	1%	1/10W	
R304	1-218-156-11	METAL GLAZE	8.2K	1%	1/10W	
R305	1-216-542-11	METAL CHIP	12K	1%	1/10W	
R306	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R307	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R308	1-216-295-00	METAL CHIP	0	5%	1/10W	
R309	1-216-295-00	METAL CHIP	0	5%	1/10W	
R310	1-216-033-00	METAL CHIP	220	5%	1/10W	
R311	1-216-033-00	METAL CHIP	220	5%	1/10W	
R313	1-216-034-00	METAL CHIP	240	5%	1/10W	
R314	1-216-043-00	METAL CHIP	560	5%	1/10W	
R315	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R316	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R317	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R318	1-216-033-00	METAL CHIP	220	5%	1/10W	
R320	1-216-033-00	METAL CHIP	220	5%	1/10W	
R321	1-216-032-00	METAL CHIP	200	5%	1/10W	
R323	1-218-142-11	METAL GLAZE	470	1%	1/10W	
R324	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R325	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R326	1-216-033-00	METAL CHIP	220	5%	1/10W	
R327	1-216-033-00	METAL CHIP	220	5%	1/10W	
R329	1-218-150-11	METAL GLAZE	1.2K	1%	1/10W	
R330	1-216-045-00	METAL CHIP	680	5%	1/10W	
R331	1-216-043-00	METAL CHIP	560	5%	1/10W	
R332	1-218-144-11	METAL GLAZE	560	1%	1/10W	
R333	1-216-623-11	METAL CHIP	68	0.5%	1/10W	
R334	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R335	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R336	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R337	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R338	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R339	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R340	1-218-150-11	METAL GLAZE	1.2K	1%	1/10W	
R341	1-218-140-11	METAL GLAZE	390	1%	1/10W	
R342	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R343	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R344	1-216-099-00	METAL CHIP	120K	5%	1/10W	
R345	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R346	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R347	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R348	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R349	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R350	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R351	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R353	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R354	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R355	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R356	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R357	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R358	1-216-295-00	METAL CHIP	0	5%	1/10W	
R359	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R360	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R362	1-216-093-00	METAL CHIP	68K	5%	1/10W	
R363	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R364	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R365	1-218-132-11	METAL GLAZE	4.7K	1%	1/10W	
R366	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R367	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R368	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R369	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R370	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R371	1-216-295-00	METAL CHIP	0	5%	1/10W	
R373	1-216-101-00	METAL CHIP	150K	5%	1/10W	
R374	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R376	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R379	1-216-043-00	METAL CHIP	560	5%	1/10W	
R380	1-216-033-00	METAL CHIP	220	5%	1/10W	

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Ref. No.	Part No.	Description				Remark
R381	1-216-295-00	METAL CHIP	0	5%	1/10W	
R382	1-216-295-00	METAL CHIP	0	5%	1/10W	
R383	1-216-295-00	METAL CHIP	0	5%	1/10W	
R401	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R402	1-216-334-11	METAL GLAZE	22K	1%	1/10W	
R403	1-218-132-11	METAL GLAZE	4.7K	1%	1/10W	
R404	1-216-654-11	METAL CHIP	1.3K	0.5%	1/10W	
R405	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R406	1-216-033-00	METAL CHIP	220	5%	1/10W	
R407	1-216-033-00	METAL CHIP	220	5%	1/10W	
R408	1-216-295-00	METAL CHIP	0	5%	1/10W	
R409	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W	
R411	1-216-037-00	METAL CHIP	330	5%	1/10W	
R412	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R413	1-216-111-00	METAL CHIP	390K	5%	1/10W	
R414	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R415	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R416	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R417	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R418	1-216-041-00	METAL CHIP	470	5%	1/10W	
R419	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R420	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R421	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R422	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R423	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R424	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R425	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R426	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R427	1-216-045-00	METAL CHIP	680	5%	1/10W	
R428	1-216-748-11	METAL CHIP	39K	5%	1/10W	
R429	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R430	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R431	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R432	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R433	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R434	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R435	1-216-101-00	METAL CHIP	150K	5%	1/10W	
R436	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R437	1-218-132-11	METAL GLAZE	4.7K	1%	1/10W	
R438	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R439	1-216-064-00	METAL CHIP	4.3K	5%	1/10W	
R440	1-216-870-11	METAL CHIP	180K	1%	1/10W	
R441	1-216-064-00	METAL CHIP	4.3K	5%	1/10W	
R442	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R443	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R444	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R445	1-216-295-00	METAL CHIP	0	5%	1/10W	
R446	1-218-155-11	METAL GLAZE	3.9K	1%	1/10W	
R447	1-216-333-11	METAL CHIP	15K	1%	1/10W	
R448	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R449	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R450	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R451	1-216-041-00	METAL CHIP	470	5%	1/10W	
R452	1-216-041-00	METAL CHIP	470	5%	1/10W	
R453	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R454	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R455	1-218-150-11	METAL GLAZE	1.2K	1%	1/10W	
R456	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R457	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R458	1-216-047-00	METAL CHIP	820	5%	1/10W	
R459	1-216-039-00	METAL CHIP	390	5%	1/10W	
R460	1-216-033-00	METAL CHIP	220	5%	1/10W	
R462	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R463	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R464	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R465	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R466	1-218-142-11	METAL GLAZE	470	1%	1/10W	
R467	1-218-140-11	METAL GLAZE	390	1%	1/10W	
R468	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R469	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R470	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R471	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R472	1-216-041-00	METAL CHIP	470	5%	1/10W	
R473	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R474	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R475	1-216-058-00	METAL GLAZE	2.4K	5%	1/10W	
R476	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R477	1-216-041-00	METAL CHIP	470	5%	1/10W	
R478	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	
R479	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R480	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R481	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R482	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R483	1-216-082-00	METAL GLAZE	24K	5%	1/10W	

Ref. No.	Part No.	Description	Remark
Q426	8-729-100-66	TRANSISTOR 2SC1623	
Q427	8-729-320-17	TRANSISTOR 2SA1122CD	
Q428	8-729-320-17	TRANSISTOR 2SA1122CD	
Q429	8-729-901-01	TRANSISTOR DTC144EK	
Q430	8-729-901-01	TRANSISTOR DTC144EK	
Q431	8-729-320-17	TRANSISTOR 2SA1122CD	
Q501	8-729-901-06	TRANSISTOR DTA144EK	
Q502	8-729-901-01	TRANSISTOR DTC144EK	
Q503	8-729-901-00	TRANSISTOR DTC124EK	
Q601	8-729-901-01	TRANSISTOR DTC144EK	
Q603	8-729-901-01	TRANSISTOR DTC144EK	
Q604	8-729-100-66	TRANSISTOR 2SC1623	
Q605	8-729-100-66	TRANSISTOR 2SC1623	
Q606	8-729-901-01	TRANSISTOR DTC144EK	
Q607	8-729-100-66	TRANSISTOR 2SC1623	
Q608	8-729-320-17	TRANSISTOR 2SA1122CD	
Q701	8-729-901-01	TRANSISTOR DTC144EK	
Q702	8-729-216-22	TRANSISTOR 2SA1162	
Q703	8-729-216-22	TRANSISTOR 2SA1162	
Q704	8-729-216-22	TRANSISTOR 2SA1162	
Q705	8-729-320-17	TRANSISTOR 2SA1122CD	
Q706	8-729-901-01	TRANSISTOR DTC144EK	
Q707	8-729-901-01	TRANSISTOR DTC144EK	
Q708	8-729-216-22	TRANSISTOR 2SA1162	
Q709	8-729-216-22	TRANSISTOR 2SA1162	
Q710	8-729-320-17	TRANSISTOR 2SA1122CD	
Q801	8-729-901-01	TRANSISTOR DTC144EK	
Q802	8-729-320-17	TRANSISTOR 2SA1122CD	
Q803	8-729-216-22	TRANSISTOR 2SA1162	
Q804	8-729-216-22	TRANSISTOR 2SA1162	
Q805	8-729-216-22	TRANSISTOR 2SA1162	
Q806	8-729-320-17	TRANSISTOR 2SA1122CD	
Q807	8-729-901-01	TRANSISTOR DTC144EK	
Q808	8-729-216-22	TRANSISTOR 2SA1162	
Q809	8-729-216-22	TRANSISTOR 2SA1162	
Q810	8-729-320-17	TRANSISTOR 2SA1122CD	
Q811	8-729-901-01	TRANSISTOR DTC144EK	
Q851	8-729-100-66	TRANSISTOR 2SC1623	
Q852	8-729-100-66	TRANSISTOR 2SC1623	
Q901	8-729-901-00	TRANSISTOR DTC124EK	
Q902	8-729-901-01	TRANSISTOR DTC144EK	
Q903	8-729-104-25	TRANSISTOR 2SB804-AV	

Ref. No.	Part No.	Description	Remark
Q904	8-729-100-66	TRANSISTOR 2SC1623	
		〈 RESISTOR 〉	
R101	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R102	1-216-029-00	METAL CHIP 150 5% 1/10W	
R103	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R104	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R105	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R106	1-216-041-00	METAL CHIP 470 5% 1/10W	
R107	1-216-035-00	METAL CHIP 270 5% 1/10W	
R108	1-216-043-00	METAL CHIP 560 5% 1/10W	
R109	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R110	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R111	1-216-045-00	METAL CHIP 680 5% 1/10W	
R112	1-216-041-00	METAL CHIP 470 5% 1/10W	
R113	1-216-041-00	METAL CHIP 470 5% 1/10W	
R115	1-216-043-00	METAL CHIP 560 5% 1/10W	
R116	1-216-033-00	METAL CHIP 220 5% 1/10W	
R117	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R119	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R120	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R121	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R122	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R124	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R125	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R126	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R127	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R128	1-216-041-00	METAL CHIP 470 5% 1/10W	
R130	1-216-033-00	METAL CHIP 220 5% 1/10W	
R131	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R132	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R133	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R137	1-216-033-00	METAL CHIP 220 5% 1/10W	
R139	1-216-295-00	METAL CHIP 0 5% 1/10W	
R140	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R141	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R142	1-216-748-11	METAL CHIP 39K 5% 1/10W	
R143	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R144	1-216-043-00	METAL CHIP 560 5% 1/10W	
R145	1-216-037-00	METAL CHIP 330 5% 1/10W	
R146	1-216-035-00	METAL CHIP 270 5% 1/10W	
R147	1-216-081-00	METAL CHIP 22K 5% 1/10W	

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Ref. No.	Part No.	Description			Remark
R148	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R149	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R150	1-216-047-00	METAL CHIP	820	5%	1/10W	
R151	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R153	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R154	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R155	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R156	1-216-295-00	METAL CHIP	0	5%	1/10W	
R157	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R158	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R159	1-216-025-00	METAL CHIP	100	5%	1/10W	
R160	1-216-045-00	METAL CHIP	680	5%	1/10W	
R161	1-216-295-00	METAL CHIP	0	5%	1/10W	
R162	1-216-045-00	METAL CHIP	680	5%	1/10W	
R163	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R164	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R165	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R166	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R167	1-216-041-00	METAL CHIP	470	5%	1/10W	
R168	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R169	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R170	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R171	1-216-748-11	METAL CHIP	39K	5%	1/10W	
R173	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R174	1-216-748-11	METAL CHIP	39K	5%	1/10W	
R175	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R176	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R177	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R178	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R179	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R180	1-216-041-00	METAL CHIP	470	5%	1/10W	
R181	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R182	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R183	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R184	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R185	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R186	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R187	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R188	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R190	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R191	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R192	1-216-037-00	METAL CHIP	330	5%	1/10W	
R193	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R194	1-216-295-00	METAL CHIP	0	5%	1/10W	
R195	1-216-041-00	METAL CHIP	470	5%	1/10W	
R196	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R197	1-218-142-11	METAL GLAZE	470	1%	1/10W	
R198	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R199	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R201	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R202	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R203	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R204	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R205	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R206	1-216-043-00	METAL CHIP	560	5%	1/10W	
R210	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R211	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R212	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R215	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R216	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R217	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R218	1-216-041-00	METAL CHIP	470	5%	1/10W	
R219	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R220	1-216-041-00	METAL CHIP	470	5%	1/10W	
R221	1-216-041-00	METAL CHIP	470	5%	1/10W	
R222	1-216-295-00	METAL CHIP	0	5%	1/10W	
R223	1-216-041-00	METAL CHIP	470	5%	1/10W	
R224	1-216-041-00	METAL CHIP	470	5%	1/10W	
R225	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R226	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R227	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R228	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R229	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R230	1-216-047-00	METAL CHIP	820	5%	1/10W	
R231	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R232	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R233	1-216-602-11	METAL GLAZE	6.8K	1%	1/10W	
R234	1-216-033-00	METAL CHIP	220	5%	1/10W	
R235	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R236	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R237	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R238	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R239	1-216-089-00	METAL CHIP	47K	5%	1/10W	

Ref. No.	Part No.	Description	Remark
IC401	8-752-031-01	IC CXA1047M	
IC501	8-752-003-12	IC CX20031	
IC601	8-752-202-10	IC CX22021	
IC602	8-752-003-22	IC CX20032	
IC603	8-759-914-56	IC CX23054	
IC701	8-752-322-24	IC CXL1008M	
IC801	8-752-322-24	IC CXL1008M	
IC851	8-759-710-05	IC NJM2238M	
IC901	8-759-925-74	IC TC74HC04AF	
IC902	8-759-925-74	IC TC74HC04AF	
		〈 COIL 〉	
L101	1-408-974-21	INDUCTOR CHIP 22uH	
L102	1-410-167-41	INDUCTOR CHIP 820uH	
L103	1-408-792-00	INDUCTOR CHIP 180uH	
L104	1-408-775-21	INDUCTOR CHIP 6. 8uH	
L105	1-408-770-11	INDUCTOR CHIP 2. 7uH	
L106	1-408-775-21	INDUCTOR CHIP 6. 8uH	
L107	1-408-775-21	INDUCTOR CHIP 6. 8uH	
L108	1-408-780-21	INDUCTOR CHIP 18uH	
L111	1-408-797-11	INDUCTOR CHIP 470uH	
L112	1-408-797-11	INDUCTOR CHIP 470uH	
L113	1-408-777-00	INDUCTOR CHIP 10uH	
L114	1-408-779-31	INDUCTOR CHIP 15uH	
L115	1-408-780-21	INDUCTOR CHIP 18uH	
L201	1-407-169-XX	INDUCTOR CHIP 100uH	
L202	1-408-795-21	INDUCTOR CHIP 330uH	
L203	1-408-784-11	INDUCTOR CHIP 39uH	
L204	1-408-782-11	INDUCTOR CHIP 27uH	
L205	1-408-776-00	INDUCTOR CHIP 8. 2uH	
L301	1-408-790-00	INDUCTOR CHIP 120uH	
L302	1-408-789-21	INDUCTOR CHIP 100uH	
L303	1-408-780-21	INDUCTOR CHIP 18uH	
L305	1-408-779-31	INDUCTOR CHIP 15uH	
L306	1-408-782-11	INDUCTOR CHIP 27uH	
L307	1-408-779-31	INDUCTOR CHIP 15uH	
L308	1-408-783-00	INDUCTOR CHIP 33uH	
L309	1-408-777-00	INDUCTOR CHIP 10uH	
L310	1-407-169-XX	INDUCTOR CHIP 100uH	
L312	1-408-781-00	INDUCTOR CHIP 22uH	
L401	1-408-782-11	INDUCTOR CHIP 27uH	
L402	1-408-970-21	INDUCTOR CHIP 10uH	
L501	1-408-984-21	INDUCTOR CHIP 150uH	
L502	1-408-785-21	INDUCTOR CHIP 47uH	
L503	1-408-767-21	INDUCTOR CHIP 1. 5uH	
L504	1-408-767-21	INDUCTOR CHIP 1. 5uH	
L505	1-408-779-31	INDUCTOR CHIP 15uH	
L601	1-407-169-XX	INDUCTOR CHIP 100uH	
L602	1-408-792-00	INDUCTOR CHIP 180uH	
L603	1-408-783-00	INDUCTOR CHIP 33uH	
L604	1-408-789-21	INDUCTOR CHIP 100uH	
L605	1-408-790-00	INDUCTOR CHIP 120uH	
L606	1-408-793-21	INDUCTOR CHIP 220uH	
L701	1-407-169-XX	INDUCTOR CHIP 100uH	
L702	1-408-787-00	INDUCTOR CHIP 68uH	
L703	1-408-777-00	INDUCTOR CHIP 10uH	
L704	1-407-169-XX	INDUCTOR CHIP 100uH	
L705	1-408-789-21	INDUCTOR CHIP 100uH	
L706	1-408-789-21	INDUCTOR CHIP 100uH	
L801	1-407-169-XX	INDUCTOR CHIP 100uH	
L802	1-408-787-00	INDUCTOR CHIP 68uH	
L803	1-408-777-00	INDUCTOR CHIP 10uH	
L804	1-407-169-XX	INDUCTOR CHIP 100uH	
L805	1-408-781-00	INDUCTOR CHIP 22uH	
L851	1-407-169-XX	INDUCTOR CHIP 100uH	
L852	1-408-777-00	INDUCTOR CHIP 10uH	
		〈 COIL VARIABLE 〉	
LV501	1-459-547-11	COIL, VARIABLE 15uH	
		〈 TRANSISTOR 〉	
Q101	8-729-102-07	TRANSISTOR 2SC2223	
Q102	8-729-901-04	TRANSISTOR DTA114EK	
Q103	8-729-102-07	TRANSISTOR 2SC2223	
Q104	8-729-901-01	TRANSISTOR DTC144EK	
Q105	8-729-904-07	TRANSISTOR FMG2-T-148	
Q107	8-729-100-66	TRANSISTOR 2SC1623	
Q110	8-729-901-01	TRANSISTOR DTC144EK	
Q111	8-729-102-07	TRANSISTOR 2SC2223	
Q112	8-729-901-01	TRANSISTOR DTC144EK	
Q113	8-729-102-07	TRANSISTOR 2SC2223	
Q116	8-729-102-07	TRANSISTOR 2SC2223	
Q117	8-729-102-07	TRANSISTOR 2SC2223	
Q118	8-729-102-07	TRANSISTOR 2SC2223	

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Ref. No.	Part No.	Description	Remark
Q119	8-729-102-07	TRANSISTOR 2SC2223	
Q120	8-729-102-07	TRANSISTOR 2SC2223	
Q121	8-729-100-66	TRANSISTOR 2SC1623	
Q122	8-729-901-01	TRANSISTOR DTC144EK	
Q123	8-729-901-01	TRANSISTOR DTC144EK	
Q124	8-729-901-06	TRANSISTOR DTA144EK	
Q125	8-729-901-01	TRANSISTOR DTC144EK	
Q126	8-729-100-66	TRANSISTOR 2SC1623	
Q127	8-729-100-66	TRANSISTOR 2SC1623	
Q128	8-729-102-07	TRANSISTOR 2SC2223	
Q129	8-729-100-66	TRANSISTOR 2SC1623	
Q130	8-729-907-26	TRANSISTOR IMX1	
Q131	8-729-320-17	TRANSISTOR 2SA1122CD	
Q132	8-729-202-38	TRANSISTOR 2SC3326N	
Q181	8-729-907-46	TRANSISTOR IMZ1	
Q182	8-729-903-10	TRANSISTOR FMW1	
Q184	8-729-320-17	TRANSISTOR 2SA1122CD	
Q201	8-729-102-07	TRANSISTOR 2SC2223	
Q202	8-729-202-38	TRANSISTOR 2SC3326N	
Q203	8-729-202-38	TRANSISTOR 2SC3326N	
Q204	8-729-904-07	TRANSISTOR FMG2	
Q206	8-729-122-63	TRANSISTOR 2SA1226	
Q207	8-729-202-38	TRANSISTOR 2SC3326N	
Q208	8-729-201-27	TRANSISTOR 2SC2715	
Q209	8-729-201-27	TRANSISTOR 2SC2715	
Q210	8-729-102-07	TRANSISTOR 2SC2223	
Q211	8-729-102-07	TRANSISTOR 2SC2223	
Q212	8-729-901-01	TRANSISTOR DTC144EK	
Q213	8-729-901-06	TRANSISTOR DTA144EK	
Q214	8-729-102-07	TRANSISTOR 2SC2223	
Q215	8-729-902-96	TRANSISTOR FMS1	
Q217	8-729-102-07	TRANSISTOR 2SC2223	
Q218	8-729-102-07	TRANSISTOR 2SC2223	
Q219	8-729-901-01	TRANSISTOR DTC144EK	
Q299	8-729-901-06	TRANSISTOR DTA144EK	
Q301	8-729-100-66	TRANSISTOR 2SC1623	
Q302	8-729-100-66	TRANSISTOR 2SC1623	
Q305	8-729-100-66	TRANSISTOR 2SC1623	
Q306	8-729-100-66	TRANSISTOR 2SC1623	
Q307	8-729-100-66	TRANSISTOR 2SC1623	
Q309	8-729-100-66	TRANSISTOR 2SC1623	
Q310	8-729-100-66	TRANSISTOR 2SC1623	
Q311	8-729-100-66	TRANSISTOR 2SC1623	
Q312	8-729-901-06	TRANSISTOR DTA144EK	
Q313	8-729-320-17	TRANSISTOR 2SA1122CD	
Q314	8-729-100-66	TRANSISTOR 2SC1623	
Q315	8-729-100-66	TRANSISTOR 2SC1623	
Q316	8-729-901-01	TRANSISTOR DTC144EK	
Q317	8-729-100-66	TRANSISTOR 2SC1623	
Q318	8-729-901-06	TRANSISTOR DTA144EK	
Q319	8-729-100-66	TRANSISTOR 2SC1623	
Q320	8-729-901-01	TRANSISTOR DTC144EK	
Q321	8-729-901-01	TRANSISTOR DTC144EK	
Q322	8-729-320-17	TRANSISTOR 2SA1122CD	
Q323	8-729-901-01	TRANSISTOR DTC144EK	
Q324	8-729-901-01	TRANSISTOR DTC144EK	
Q325	8-729-901-06	TRANSISTOR DTA144EK	
Q326	8-729-901-06	TRANSISTOR DTA144EK	
Q328	8-729-100-66	TRANSISTOR 2SC1623	
Q401	8-729-100-66	TRANSISTOR 2SC1623	
Q402	8-729-100-66	TRANSISTOR 2SC1623	
Q403	8-729-901-01	TRANSISTOR DTC144EK	
Q404	8-729-901-01	TRANSISTOR DTC144EK	
Q405	8-729-901-06	TRANSISTOR DTA144EK	
Q406	8-729-100-66	TRANSISTOR 2SC1623	
Q407	8-729-320-17	TRANSISTOR 2SA1122CD	
Q408	8-729-320-17	TRANSISTOR 2SA1122CD	
Q409	8-729-100-66	TRANSISTOR 2SC1623	
Q410	8-729-320-17	TRANSISTOR 2SA1122CD	
Q411	8-729-901-01	TRANSISTOR DTC144EK	
Q412	8-729-901-01	TRANSISTOR DTC144EK	
Q413	8-729-901-01	TRANSISTOR DTC144EK	
Q414	8-729-100-66	TRANSISTOR 2SC1623	
Q415	8-729-320-17	TRANSISTOR 2SA1122CD	
Q416	8-729-320-17	TRANSISTOR 2SA1122CD	
Q417	8-729-901-01	TRANSISTOR DTC144EK	
Q418	8-729-100-66	TRANSISTOR 2SC1623	
Q419	8-729-100-66	TRANSISTOR 2SC1623	
Q420	8-729-202-38	TRANSISTOR 2SC3326N	
Q421	8-729-202-38	TRANSISTOR 2SC3326N	
Q422	8-729-100-66	TRANSISTOR 2SC1623	
Q423	8-729-100-66	TRANSISTOR 2SC1623	
Q424	8-729-901-01	TRANSISTOR DTC144EK	
Q425	8-729-100-66	TRANSISTOR 2SC1623	

Ref. No.	Part No.	Description			Remark
C611	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C612	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C613	1-135-073-00	TANTALUM CHIP	0.33uF	10%	35V
C614	1-163-098-00	CERAMIC CHIP	16PF	5%	50V
C615	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C616	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C617	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C618	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C619	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C620	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C621	1-135-155-21	TANTALUM CHIP	4.7uF	10%	10V
C622	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V
C623	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V
C624	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C626	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C627	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C628	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C629	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C630	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C631	1-135-072-21	TANTALUM CHIP	0.22uF	10%	35V
C632	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C634	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C635	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C636	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C637	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C638	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C639	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C640	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C641	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C642	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C644	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C645	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
C646	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C647	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C648	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C649	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C650	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C651	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C652	1-135-161-21	TANTALUM CHIP	22uF	10%	6.3V
C653	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C654	1-163-117-00	CERAMIC CHIP	100PF	5%	50V

Ref. No.	Part No.	Description			Remark
C655	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C656	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C657	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C658	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C659	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C660	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C661	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C662	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C663	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C664	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C701	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C702	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C703	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C704	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V
C705	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C706	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C707	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C708	1-135-161-21	TANTALUM CHIP	22uF	10%	6.3V
C709	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C710	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C711	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C712	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C713	1-135-097-21	TANTALUM CHIP	15uF	10%	10V
C714	1-135-097-21	TANTALUM CHIP	15uF	10%	10V
C715	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C716	1-135-161-21	TANTALUM CHIP	22uF	10%	6.3V
C717	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V
C718	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C719	1-135-148-21	TANTALUM CHIP	1.5uF	20%	10V
C721	1-124-584-00	ELECT	100uF	20%	10V
C722	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C724	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C801	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C802	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C803	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C804	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V
C805	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C806	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C807	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C808	1-135-161-21	TANTALUM CHIP	22uF	10%	6.3V
C809	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C810	1-135-091-00	TANTALUM CHIP	1uF	20%	16V

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Ref. No.	Part No.	Description	Remark
C811	1-163-125-00	CERAMIC CHIP 220PF 5% 50V	
C812	1-163-127-00	CERAMIC CHIP 270PF 5% 50V	
C813	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C814	1-135-097-21	TANTALUM CHIP 15uF 10% 10V	
C815	1-163-037-11	CERAMIC CHIP 0. 022uF 10% 25V	
C816	1-135-161-21	TANTALUM CHIP 22uF 10% 6. 3V	
C817	1-135-156-21	TANTALUM CHIP 6. 8uF 10% 6. 3V	
C818	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
C819	1-135-148-21	TANTALUM CHIP 1. 5uF 20% 10V	
C820	1-135-166-21	TANTALUM CHIP 47uF 10% 10V	
C821	1-124-584-00	ELECT 100uF 20% 10V	
C822	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
C824	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C825	1-163-099-00	CERAMIC CHIP 18PF 5% 50V	
C826	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
C851	1-135-161-21	TANTALUM CHIP 22uF 10% 6. 3V	
C852	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
C853	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
C854	1-163-125-00	CERAMIC CHIP 220PF 5% 50V	
C855	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
C856	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
C857	1-135-155-21	TANTALUM CHIP 4. 7uF 10% 10V	
C858	1-163-141-00	CERAMIC CHIP 0. 001uF 5% 50V	
C859	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
C860	1-163-093-00	CERAMIC CHIP 10PF 5% 50V	
C901	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
C902	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
C903	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
C904	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
C905	1-135-156-21	TANTALUM CHIP 6. 8uF 10% 6. 3V	
C906	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
C907	1-135-166-21	TANTALUM CHIP 47uF 10% 10V	
C908	1-163-035-00	CERAMIC CHIP 0. 047uF 50V	
		(CERAMIC FILTER)	
CF601	1-567-306-11	RESONATOR, CERAMIC	
CF851	1-567-390-11	FILTER, CERAMIC 10. 7M	
		(CONNECTOR)	
CN101	1-566-943-11	CONNECTOR, BOARD TO BOARD 18P	
CN102	1-566-943-11	CONNECTOR, BOARD TO BOARD 18P	
CN911	1-506-470-11	CONNECTOR 5P, MALE	
CN912	1-506-472-11	CONNECTOR 7P, MALE	
CN914	1-506-471-11	CONNECTOR 6P, MALE	
		(CAP TRIMMER)	
CV601	1-141-311-11	CAP, TRIMMER 20PF	
		(DIODE)	
D101	8-719-400-18	DIODE MA152WK	
D102	8-719-400-18	DIODE MA152WK	
D105	8-719-800-76	DIODE 1SS226	
D106	8-719-400-18	DIODE MA152WK	
D107	8-719-400-18	DIODE MA152WK	
D108	8-719-400-18	DIODE MA152WK	
D109	8-719-400-18	DIODE MA152WK	
D301	8-719-400-18	DIODE MA152WK	
D302	8-719-400-18	DIODE MA152WK	
D401	8-719-400-18	DIODE MA152WK	
D402	8-719-400-18	DIODE MA152WK	
D403	8-719-400-18	DIODE MA152WK	
D404	8-719-400-18	DIODE MA152WK	
D405	8-719-400-18	DIODE MA152WK	
D501	8-719-400-18	DIODE MA152WK	
D701	8-719-104-34	DIODE 1S2836	
D702	8-719-400-18	DIODE 1S2837	
D801	8-719-400-18	DIODE 1S2837	
D802	8-719-400-18	DIODE 1S2837	
D803	8-719-104-34	DIODE 1S2836	
D901	8-719-400-18	DIODE MA152WK	
		(DELAY LINE)	
DL501	1-415-611-11	DELAY LINE, GLASS (3. 58MHz/10. 7MHz)	
		(FILTER)	
FL301	1-236-370-11	LPF, DEMOD (Y)	
FL401	1-415-647-11	DELAY LINE, LC (250nS)	
		(IC)	
IC101	8-759-233-94	IC TA8607F	
IC102	8-759-925-60	IC BA401	
IC299	8-759-239-58	IC TC74HC221AF	
IC301	8-752-002-XX	IC CX20030	

Ref. No.	Part No.	Description				Remark
C112	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C113	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C114	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C115	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C116	1-135-070-00	TANTALUM CHIP	0.1uF	10%	35V	
C117	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C118	1-163-224-11	CERAMIC CHIP	7PF	0.25PF	50V	
C119	1-163-227-11	CERAMIC CHIP	10PF	5%	50V	
C120	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C122	1-163-088-00	CERAMIC CHIP	5PF		50V	
C123	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C124	1-163-104-00	CERAMIC CHIP	30PF	5%	50V	
C126	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C127	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C128	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C129	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
C130	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C131	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C132	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C133	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C134	1-163-227-11	CERAMIC CHIP	10PF	5%	50V	
C135	1-163-224-11	CERAMIC CHIP	7PF	0.25PF	50V	
C136	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C137	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C138	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C139	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C140	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C141	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C142	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C143	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V	
C145	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C146	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C147	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C181	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C182	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C183	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C201	1-135-166-21	TANTALUM CHIP	47uF	10%	10V	
C202	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C204	1-163-127-00	CERAMIC CHIP	270PF	5%	50V	
C206	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C207	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C208	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	

Ref. No.	Part No.	Description				Remark
C209	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C210	1-163-106-00	CERAMIC CHIP	36PF	5%	50V	
C211	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C212	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V	
C213	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C214	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C215	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C216	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C217	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C218	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C219	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C220	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C221	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C222	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C223	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C224	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C225	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C226	1-163-122-00	CERAMIC CHIP	160PF	5%	50V	
C227	1-163-120-00	CERAMIC CHIP	130PF	5%	50V	
C228	1-163-122-00	CERAMIC CHIP	160PF	5%	50V	
C297	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C298	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C299	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C302	1-135-162-21	TANTALUM CHIP	33uF	20%	6.3V	
C303	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
C304	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C305	1-163-137-00	CERAMIC CHIP	680PF	5%	50V	
C307	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C308	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V	
C309	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C311	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C313	1-135-166-21	TANTALUM CHIP	47uF	10%	10V	
C314	1-163-241-11	CERAMIC CHIP	39PF	5%	50V	
C316	1-163-241-11	CERAMIC CHIP	39PF	5%	50V	
C317	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C318	1-164-491-11	CERAMIC CHIP	300PF	1%	50V	
C319	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C320	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C321	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C322	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C323	1-163-012-00	CERAMIC CHIP	0.0018uF	10%	50V	
C324	1-163-035-00	CERAMIC CHIP	0.047uF		50V	

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Ref. No.	Part No.	Description			Remark
C325	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V
C326	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C327	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V
C328	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C329	1-135-166-21	TANTALUM CHIP	47uF	10%	10V
C330	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C331	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C332	1-135-155-21	TANTALUM CHIP	4.7uF	10%	10V
C334	1-135-155-21	TANTALUM CHIP	4.7uF	10%	10V
C335	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C337	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C338	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C339	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C340	1-135-072-21	TANTALUM CHIP	0.22uF	10%	35V
C341	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V
C343	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C344	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C345	1-163-134-00	CERAMIC CHIP	510PF	5%	50V
C347	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C401	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C402	1-124-968-11	ELECT	22uF	20%	6.3V
C403	1-163-106-00	CERAMIC CHIP	36PF	5%	50V
C404	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
C405	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C406	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C407	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C408	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C409	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C410	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C411	1-163-088-00	CERAMIC CHIP	5PF		50V
C412	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V
C413	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C414	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C415	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C416	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C417	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C418	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C419	1-164-491-11	CERAMIC CHIP	300PF	1%	50V
C420	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V
C421	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C422	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C423	1-163-035-00	CERAMIC CHIP	0.047uF		50V

Ref. No.	Part No.	Description			Remark
C424	1-135-155-21	TANTALUM CHIP	4.7uF	10%	10V
C427	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V
C428	1-135-161-21	TANTALUM CHIP	22uF	10%	6.3V
C429	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V
C501	1-135-166-21	TANTALUM CHIP	47uF	10%	10V
C502	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C503	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C504	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C505	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C506	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C507	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C508	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C509	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V
C510	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V
C512	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C513	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C514	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C515	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C516	1-135-155-21	TANTALUM CHIP	4.7uF	10%	10V
C517	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C519	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C520	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
C521	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C522	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C523	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C524	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C525	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C526	1-135-161-21	TANTALUM CHIP	22uF	10%	6.3V
C527	1-135-161-21	TANTALUM CHIP	22uF	10%	6.3V
C528	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C529	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C530	1-163-227-11	CERAMIC CHIP	10PF	5%	50V
C601	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V
C602	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C603	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C604	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C605	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C606	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C607	1-135-070-00	TANTALUM CHIP	0.1uF	10%	35V
C608	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C609	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V
C610	1-163-035-00	CERAMIC CHIP	0.047uF		50V

Ref. No.	Part No.	Description	Remark
		(SWITCH)	
S001	1-554-174-00	SWITCH, KEY BOARD (■ STOP)	
S002	1-554-174-00	SWITCH, KEY BOARD (● REC)	
S003	1-554-174-00	SWITCH, KEY BOARD (►► FF)	
S004	1-554-174-00	SWITCH, KEY BOARD (▲ EJECT)	
S005	1-554-174-00	SWITCH, KEY BOARD (► PLAY)	
S006	1-554-174-00	SWITCH, KEY BOARD (❚❚ PAUSE)	
S007	1-554-174-00	SWITCH, KEY BOARD (POWER)	
S008	1-554-174-00	SWITCH, KEY BOARD (◄◄ REW)	
S009	1-554-174-00	SWITCH, KEY BOARD (RESET)	
S010	1-570-864-11	SWITCH, SLIDE (TC COUNTER)	
S011	1-570-836-11	SWITCH, SLIDE (AUDIO OUTPUT)	
S012	1-570-854-11	SWITCH, SLIDE (TIMER)	
S013	1-570-864-11	SWITCH, SLIDE (AUTO REPEAT)	
S014	1-570-864-11	SWITCH, SLIDE (INPUT SELECT)	
S015	1-554-174-00	SWITCH, KEY BOARD (AUDIO DUB)	
S016	1-571-787-11	SWITCH, TACTILE (❚►)	
S017	1-571-787-11	SWITCH, TACTILE (◄❚)	
S018	1-554-174-00	SWITCH, KEY BOARD (TC DUB)	
		(CRYSTAL)	
X001	1-567-346-11	OSCILLATOR, CERAMIC (5MHz)	
**			
*	A-7061-821-A	FR-40 BOARD, COMPLETE *********************	
	1-559-763-11	WIRE, FLAT TYPE 26P	
*	3-739-102-01	LID (H), UPPER, FR SHIELD CASE	
		(CAPACITOR)	
C001	1-135-091-00	TANTALUM CHIP 1uF 20% 16V	
C002	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C003	1-135-091-00	TANTALUM CHIP 1uF 20% 16V	
C004	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C005	1-135-091-00	TANTALUM CHIP 1uF 20% 16V	
C006	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C007	1-135-091-00	TANTALUM CHIP 1uF 20% 16V	
C008	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C009	1-135-161-21	TANTALUM CHIP 22uF 10% 6.3V	
C010	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C011	1-163-017-00	CERAMIC CHIP 0.0047uF 5% 50V	
C012	1-135-157-21	TANTALUM CHIP 10uF 20% 6.3V	
C013	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C031	1-135-157-21	TANTALUM CHIP 10uF 20% 6.3V	
C032	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C033	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C034	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C041	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C042	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C044	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C045	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C046	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C047	1-163-115-00	CERAMIC CHIP 82PF 5% 50V	
C051	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C052	1-135-156-21	TANTALUM CHIP 6.8uF 10% 6.3V	
C053	1-135-148-21	TANTALUM CHIP 1.5uF 20% 10V	
C054	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C055	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C056	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
		(CONNECTOR)	
CN001	1-562-629-11	SOCKET, CONNECTOR 19P	
CN002	1-565-209-11	CONNECTOR, FPC (ZIF) 26P	
CN003	1-506-473-11	CONNECTOR 8P, MALE	
CN004	1-506-472-11	CONNECTOR 7P, MALE	
		(DIODE)	
D001	8-719-400-18	DIODE MA152WK	
		(IC)	
IC051	8-759-710-09	IC NJM2233AM	
		(COIL)	
L001	1-408-777-00	INDUCTOR CHIP 10uH	
		(TRANSISTOR)	
Q001	8-729-202-38	TRANSISTOR 2SC3326N	
Q002	8-729-202-38	TRANSISTOR 2SC3326N	
Q003	8-729-202-38	TRANSISTOR 2SC3326N	
Q004	8-729-202-38	TRANSISTOR 2SC3326N	
Q005	8-729-901-05	TRANSISTOR DTA124EK	

FB-169 (P) HE-2 HK-4

Ref. No.	Part No.	Description	Remark
Q006	8-729-901-05	TRANSISTOR DTA124EK	
Q007	8-729-901-01	TRANSISTOR DTC144EK	
Q008	8-729-901-01	TRANSISTOR DTC144EK	
Q009	8-729-320-17	TRANSISTOR 2SA1122CD	
Q031	8-729-201-27	TRANSISTOR 2SC2715	
Q032	8-729-102-07	TRANSISTOR 2SC2223	
Q041	8-729-216-22	TRANSISTOR 2SA1162	
Q042	8-729-119-76	TRANSISTOR 2SA1175	
Q043	8-729-320-17	TRANSISTOR 2SA1122CD	

〈 RESISTOR 〉

Ref. No.	Part No.	Description	Remark
R001	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R002	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R003	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R004	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R005	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R006	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R007	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R008	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R009	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R010	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R011	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R012	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R016	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R017	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R018	1-216-695-11	METAL CHIP 68K 0.5% 1/10W	
R019	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R020	1-216-025-00	METAL CHIP 100 5% 1/10W	
R021	1-216-025-00	METAL CHIP 100 5% 1/10W	
R022	1-216-025-00	METAL CHIP 100 5% 1/10W	
R023	1-216-025-00	METAL CHIP 100 5% 1/10W	
R024	1-216-033-00	METAL CHIP 220 5% 1/10W	
R025	1-216-027-00	METAL CHIP 120 5% 1/10W	
R031	1-216-041-00	METAL CHIP 470 5% 1/10W	
R032	1-216-047-00	METAL CHIP 820 5% 1/10W	
R033	1-216-035-00	METAL CHIP 270 5% 1/10W	
R034	1-216-039-00	METAL CHIP 390 5% 1/10W	
R035	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R036	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R041	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R042	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R043	1-216-035-00	METAL CHIP 270 5% 1/10W	
R044	1-216-033-00	METAL CHIP 220 5% 1/10W	
R045	1-216-021-00	METAL CHIP 68 5% 1/10W	
R046	1-216-009-00	METAL CHIP 22 5% 1/10W	
R047	1-216-043-00	METAL CHIP 560 5% 1/10W	
R048	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R049	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R051	1-216-035-00	METAL CHIP 270 5% 1/10W	
R052	1-216-025-00	METAL CHIP 100 5% 1/10W	

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* 1-633-695-11 HE-2 BOARD

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〈 CONNECTOR 〉

Ref. No.	Part No.	Description	Remark
CN201	1-506-468-11	CONNECTOR 3P, MALE	

〈 JACK 〉

Ref. No.	Part No.	Description	Remark
J201	1-507-792-00	JACK (HEADPHONES)	

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* A-7061-820-A HK-4 BOARD, COMPLETE

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Ref. No.	Part No.	Description	Remark
	3-531-576-01	RIVET	
	3-671-893-00	CLAMP (LOW TYPE)	
	* 3-724-107-01	RETAINER, PC BOARD	
	3-831-441-XX	CUSHION (5)	

〈 CAPACITOR 〉

Ref. No.	Part No.	Description	Remark
C101	1-135-166-21	TANTALUM CHIP 47uF 10% 10V	
C102	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C103	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C104	1-163-145-00	CERAMIC CHIP 0.0015uF 5% 50V	
C105	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C106	1-163-127-00	CERAMIC CHIP 270PF 5% 50V	
C107	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C108	1-163-115-00	CERAMIC CHIP 82PF 5% 50V	
C109	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
C110	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C111	1-163-241-11	CERAMIC CHIP 39PF 5% 50V	

Ref. No.	Part No.	Description	Remark
D155	8-719-104-34	DIODE 1S2836	
D156	8-719-104-34	DIODE 1S2836	
D157	8-719-400-18	DIODE MA152WK	
D158	8-719-104-34	DIODE 1S2836	
		(IC)	
IC001	8-752-830-17	IC CXP5046H-262Q	
IC002	8-759-937-56	IC S-8054ALB-LM-S	
IC003	8-741-100-48	IC SBX1610-59	
IC004	8-759-927-46	IC SN74HC00ANS	
IC101	8-759-981-XX	IC NJM4560M	
IC102	8-759-300-71	IC TC4053BFHB	
IC152	8-759-981-92	IC NJM4558M	
IC153	8-759-981-92	IC NJM4558M	
IC154	8-759-700-62	IC NJM4562M	
		(COIL)	
L001	1-408-789-21	INDUCTOR, CHIP 100uH	
L101	1-408-979-21	INDUCTOR 56uH	
		(TRANSISTOR)	
Q012	8-729-901-06	TRANSISTOR DTA144EK	
Q013	8-729-140-88	TRANSISTOR FP1A3M	
Q015	8-729-216-22	TRANSISTOR 2SA1162	
Q016	8-729-900-53	TRANSISTOR DTC114EK	
Q017	8-729-901-06	TRANSISTOR DTA144EK	
Q018	8-729-901-06	TRANSISTOR DTA144EK	
Q019	8-729-901-01	TRANSISTOR DTC144EK	
Q101	8-729-901-01	TRANSISTOR DTC144EK	
Q103	8-729-216-22	TRANSISTOR 2SA1162	
Q104	8-729-100-66	TRANSISTOR 2SC1623	
Q105	8-729-202-38	TRANSISTOR 2SC3326N	
Q106	8-729-202-38	TRANSISTOR 2SC3326N	
Q153	8-729-202-38	TRANSISTOR 2SC3326N	
Q154	8-729-202-38	TRANSISTOR 2SC3326N	
Q155	8-729-202-38	TRANSISTOR 2SC3326N	
Q156	8-729-100-66	TRANSISTOR 2SC1623	
Q157	8-729-901-06	TRANSISTOR DTA144EK	
Q158	8-729-901-06	TRANSISTOR DTA144EK	
Q159	8-729-901-01	TRANSISTOR DTC144EK	
Q160	8-729-140-75	TRANSISTOR 2SD999-CLCK	

Ref. No.	Part No.	Description	Remark
Q161	8-729-101-07	TRANSISTOR 2SB798-DLDK	
Q162	8-729-202-38	TRANSISTOR 2SC3326N	
		(RESISTOR)	
R001	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R002	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R003	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R005	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R006	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R007	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R008	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R009	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R010	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R011	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R012	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R013	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R014	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R015	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R016	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R017	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R018	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R019	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R020	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R021	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R022	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R023	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R024	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R025	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R026	1-216-037-00	METAL CHIP 330 5% 1/10W	
R027	1-216-029-00	METAL CHIP 150 5% 1/10W	
R028	1-216-029-00	METAL CHIP 150 5% 1/10W	
R029	1-216-037-00	METAL CHIP 330 5% 1/10W	
R030	1-216-037-00	METAL CHIP 330 5% 1/10W	
R031	1-216-037-00	METAL CHIP 330 5% 1/10W	
R032	1-216-037-00	METAL CHIP 330 5% 1/10W	
R033	1-216-037-00	METAL CHIP 330 5% 1/10W	
R034	1-216-037-00	METAL CHIP 330 5% 1/10W	
R035	1-216-037-00	METAL CHIP 330 5% 1/10W	
R036	1-216-037-00	METAL CHIP 330 5% 1/10W	
R037	1-216-029-00	METAL CHIP 150 5% 1/10W	
R038	1-216-029-00	METAL CHIP 150 5% 1/10W	
R039	1-216-029-00	METAL CHIP 150 5% 1/10W	

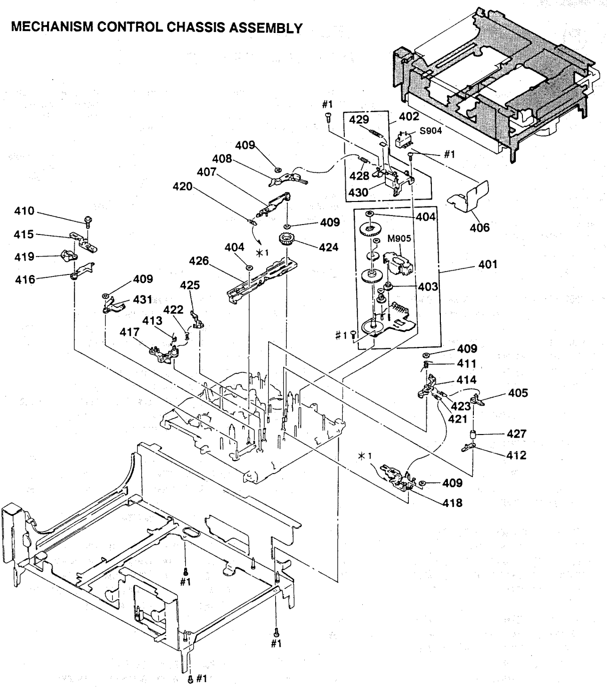
FB-169 (P)

Ref. No.	Part No.	Description	Remark
R040	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R041	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R042	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R043	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R044	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R045	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R046	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R047	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R048	1-216-037-00	METAL CHIP 330 5% 1/10W	
R050	1-216-037-00	METAL CHIP 330 5% 1/10W	
R051	1-216-037-00	METAL CHIP 330 5% 1/10W	
R052	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R053	1-216-033-00	METAL CHIP 220 5% 1/10W	
R054	1-216-033-00	METAL CHIP 220 5% 1/10W	
R055	1-216-033-00	METAL CHIP 220 5% 1/10W	
R103	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R104	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R105	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R106	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R107	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R108	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R109	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R110	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R111	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R112	1-216-037-00	METAL CHIP 330 5% 1/10W	
R113	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R114	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R123	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R124	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R125	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R126	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R127	1-216-037-00	METAL CHIP 330 5% 1/10W	
R128	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R129	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R130	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R131	1-216-295-00	METAL CHIP 0 5% 1/10W	
R132	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R133	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R134	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R135	1-216-295-00	METAL CHIP 0 5% 1/10W	
R168	1-216-295-00	METAL CHIP 0 5% 1/10W	
R170	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
R171	1-216-295-00	METAL CHIP 0 5% 1/10W	
R173	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
R174	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R175	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R176	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R177	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R178	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R179	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R180	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R181	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R182	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R183	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R184	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R185	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R186	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R187	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R188	1-216-103-00	METAL CHIP 180K 5% 1/10W	
R189	1-216-107-00	METAL CHIP 270K 5% 1/10W	
R190	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R191	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R192	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R193	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R194	1-216-295-00	METAL CHIP 0 5% 1/10W	
R195	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R196	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R197	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R198	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R199	1-216-107-00	METAL CHIP 270K 5% 1/10W	
R200	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R201	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R202	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R203	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R204	1-216-105-00	METAL CHIP 220K 5% 1/10W	

(VARIABLE RESISTOR)

Ref. No.	Part No.	Description	Remark
RV001	1-230-122-00	RES, VAR, CARBON 100K	
RV002	1-230-874-11	RES, ADJ, METAL 100K	
RV101	1-228-988-00	RES, VAR, CARBON 10K/10K	
RV151	1-230-122-00	RES, VAR, CARBON 100K	
RV152	1-230-122-00	RES, VAR, CARBON 100K	

5-9. MECHANISM CONTROL CHASSIS ASSEMBLY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Ref. No.	Part No.	Description	Remark
401	A-7040-159-A	M-SW ASSY	
402	A-7040-198-A	COVER (M) ASSY, C MOTOR	
403	3-308-502-00	WHEEL, WORM	
404	3-315-384-31	WASHER, STOPPER	
405	X-3711-993-1	BRAKE ASSY, REW	
406	*1-630-923-11	FP-206 FLEXIBLE BOARD	
407	*X-3686-528-4	ARM ASSY, B RELEASE	
408	X-3711-987-2	BRAKE ASSY, T.S	
409	3-669-465-00	WASHER (1.5), STOPPER	
410	3-686-528-01	SCREW (2X6), +PSW	
411	3-686-579-01	SPRING	
412	*3-686-580-01	ARM, SET UP	
413	3-686-603-04	SPRING	
414	*3-686-634-01	ARM, RL	
415	*3-686-642-01	PLATE, ADJUSTMENT, BAND	
416	*3-686-643-01	ARM, MODE	
417	*3-686-644-01	ARM, BAND	
418	*3-686-656-01	SLIDER, B RELEASE	
419	*3-686-755-01	DISK, EJECT	
420	3-686-903-01	SPRING, TENSION	
421	3-686-904-01	SPRING, TENSION	
422	3-686-905-02	SPRING, TENSION	
423	3-686-906-01	SPRING, TENSION	
424	3-686-909-01	GEAR, MODE OUTPUT	
425	3-686-996-01	BRAKE (S), HARD	
426	3-716-935-01	SLIDER, M	
427	3-716-933-01	SPACER, REW BRAKE	
428	3-714-035-01	SPRING, TENSION	
429	3-722-110-01	SPRING, TENSION	
430	3-739-107-01	COVER (M), C MOTOR	
431	*X-3686-530-01	ARM (A) ASSY, SELECTION	
M905	8-835-138-01	MOTOR, DC (DNR-5301B) (CONTROL)	
S904	1-572-298-21	SWITCH, PUSH (REC PROOF, MPHG, ME/MP)	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

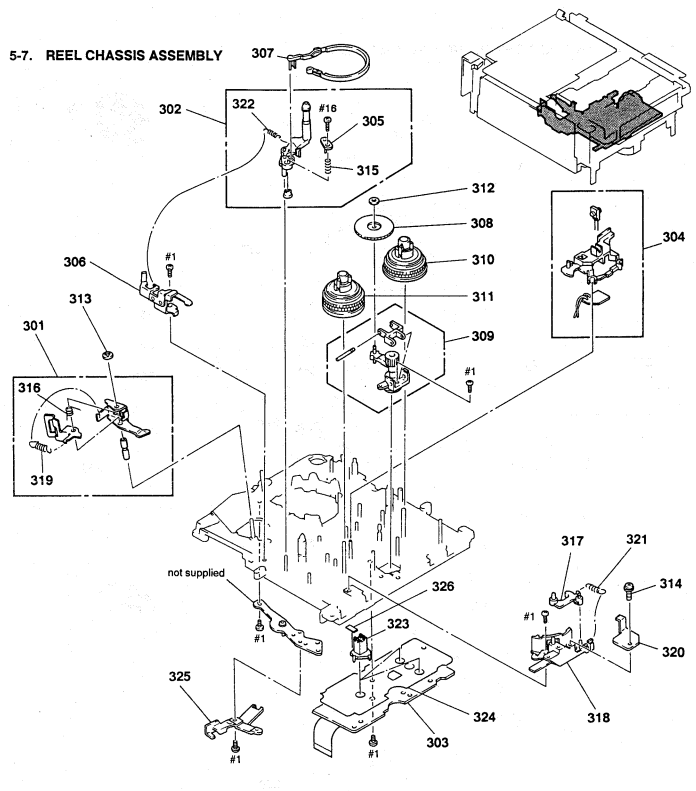
When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA..., uPA...: μPA...,
  uPB...: μPB..., uPC...: μPC...,
  uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH

Ref. No.	Part No.	Description			Remark
	* A-7062-654-A	FB-169 (P) BOARD, COMPLETE			
		**************************			
	* 3-689-521-01	HOLDER, LED, ROUND			
	* 3-697-607-01	HOLDER (SU), LED			
	* 3-739-130-01	HOLDER, LEVEL METER			
	* 3-739-131-01	HOLDER (H), LED			
		(CAPACITOR)			
C001	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C002	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V
C003	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C006	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C007	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C008	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C009	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C010	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C011	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C012	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C013	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C014	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V
C015	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C101	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C102	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C103	1-135-168-21	TANTALUM CHIP	100uF	20%	4V
C104	1-135-161-21	TANTALUM CHIP	22uF	10%	6.3V
C105	1-135-168-21	TANTALUM CHIP	100uF	20%	4V
C106	1-135-161-21	TANTALUM CHIP	22uF	10%	6.3V
C107	1-135-159-21	TANTALUM CHIP	10uF	10%	16V
C108	1-135-159-21	TANTALUM CHIP	10uF	10%	16V
C111	1-126-369-11	ELECT	220uF	20%	6.3V
C112	1-126-369-11	ELECT	220uF	20%	6.3V
C113	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C114	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C159	1-135-159-21	TANTALUM CHIP	10uF	10%	16V
C160	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C161	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C162	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C163	1-135-159-21	TANTALUM CHIP	10uF	10%	16V
C164	1-135-070-00	TANTALUM CHIP	0.1uF	10%	35V

Ref. No.	Part No.	Description			Remark
C165	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C166	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C167	1-126-160-11	ELECT	1uF	20%	50V
C168	1-135-159-21	TANTALUM CHIP	10uF	10%	16V
C169	1-135-153-21	TANTALUM CHIP	2.2uF	10%	20V
C170	1-135-153-21	TANTALUM CHIP	2.2uF	10%	20V
C171	1-135-159-21	TANTALUM CHIP	10uF	10%	16V
C172	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C173	1-163-014-00	CERAMIC CHIP	0.0027uF	5%	50V
C174	1-163-014-00	CERAMIC CHIP	0.0027uF	5%	50V
C175	1-163-012-00	CERAMIC CHIP	0.0018uF	10%	50V
C176	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
		(CONNECTOR)			
CN001	1-569-301-11	PIN, CONNECTOR (PC BOARD) 5P			
CN002	1-569-301-11	PIN, CONNECTOR (PC BOARD) 5P			
CN003	1-569-301-11	PIN, CONNECTOR (PC BOARD) 5P			
CN004	1-569-301-11	PIN, CONNECTOR (PC BOARD) 5P			
CN101	1-506-469-11	CONNECTOR 4P, MALE			
		(DIODE)			
D001	8-719-800-76	DIODE 1SS226			
D009	8-719-945-82	DIODE GL5HS42 (STANDBY)			
D010	8-719-920-05	DIODE TLG123A (POWER)			
D011	8-719-907-92	DIODE GL5EG41 (PCM)			
D012	8-719-941-46	DIODE GL5HY41 (SP)			
D013	8-719-941-46	DIODE GL5HY41 (📼)			
D014	8-719-918-96	DIODE TL0123 (❚❚)			
D015	8-719-812-32	DIODE TLY123 (⏩)			
D016	8-719-920-05	DIODE TLG123A (▶)			
D017	8-719-812-32	DIODE TLY123 (⏪)			
D018	8-719-939-36	DIODE GL5HY42 (⏏)			
D019	8-719-812-31	DIODE TLR123 (●)			
D020	8-719-913-59	DIODE LT-9230N (Hi8)			
D024	8-719-906-58	DIODE GL5HD41 (TIMER REC)			
D025	8-719-812-31	DIODE TLR123 (AUDIO DUB)			
D026	8-719-812-31	DIODE TLR123 (TC DUB)			
D101	8-719-104-34	DIODE 1S2836			
D102	8-719-104-34	DIODE 1S2836			
D103	1-520-503-11	METER UNIT, LED LEVEL			

5-7. REEL CHASSIS ASSEMBLY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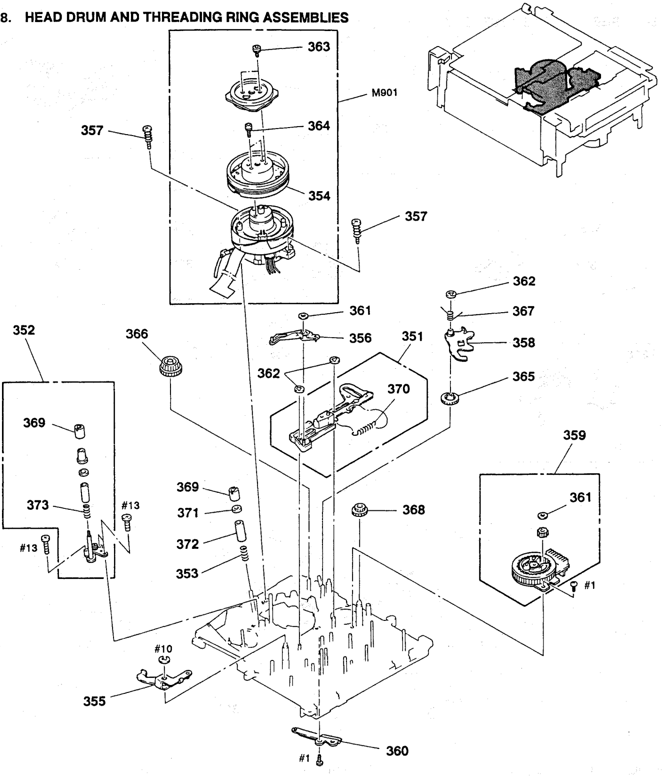
Ref. No.	Part No.	Description	Remark
301	A-7040-008-A	ARM ASSY, PINCH PRESS	
302	A-7040-071-A	ARM ASSY, TENSION REGULATOR	
303	*A-7061-818-A	RS-31 BOARD, COMPLETE	
304	*A-7070-024-A	LD-1 BOARD, COMPLETE	
305	*X-3686-523-1	PLATE ASSY, TENSION REGULATOR	
306	*X-3686-525-1	HOOK ASSY, SPRING	
307	X-3686-531-1	BAND ASSY, TENSION REGULATOR	
308	X-3686-763-1	GEAR (B) ASSY, DRIVING	
309	X-3711-963-1	DRIVING COMPLETE ASSY	
310	X-3711-998-1	TABLE ASSY, REEL, TAKE-UP	
311	X-3713-427-1	TABLE ASSY, REEL, S	
312	3-315-384-31	WASHER, STOPPER	
313	3-669-465-00	WASHER (1.5), STOPPER	
314	3-669-480-11	+ PTPWH 2	
315	3-669-666-00	SPRING, COMPRESSION	
316	3-686-568-01	SPRING, TORSION	
317	*3-686-637-01	BRAKE (S), SOFT	
318	*3-686-760-01	GUIDE, BAND	
319	3-686-885-01	SPRING, TENSION	
320	*3-686-991-01	STOPPER, REEL TABLE	
321	3-714-014-01	SPRING, TENSION	
322	3-699-519-01	SPRING, TENSION	
323	3-712-410-01	HOLDER, RS	
324	3-712-411-01	INSULATOR, RS	
325	3-712-406-01	CLAMP, WIRE	
326	3-722-175-01	SPACER, MD	

5-8. HEAD DRUM AND THREADING RING ASSEMBLIES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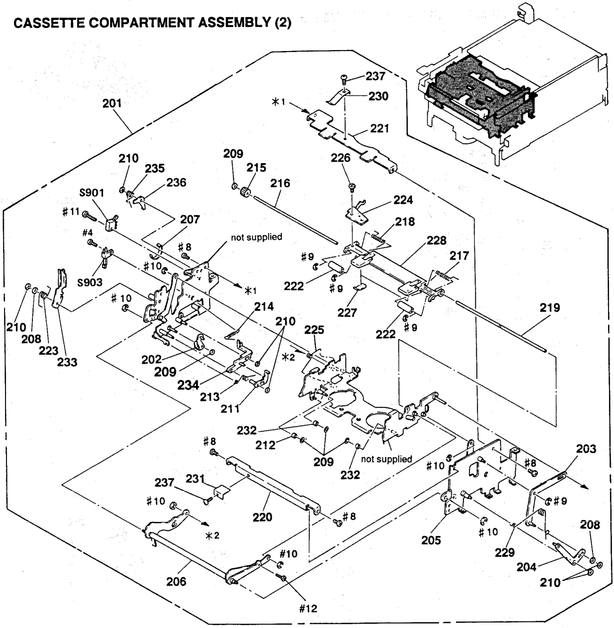
Ref. No.	Part No.	Description	Remark
351	*A-7040-010-A	SLIDER ASSY, L	
352	A-7040-058-A	GUIDE BLOCK COMPLETE ASSY, #5	
353	3-699-609-01	SPRING, COMPRESSION	
354	A-7049-188-A	DRUM ASSY, ROTALY UPPER (DGR-35-R)	
355	*X-3686-509-1	LEVER ASSY, PINCH PRESS	
356	*X-3686-518-3	ARM ASSY	
357	X-3686-569-1	SCREW ASSY, FITTING	
358	X-3686-579-1	CHANGE ASSY, DRIVE	
359	X-3712-403-1	L-SW ASSY (LS-9 BOARD)	
360	1-535-535-11	TERMINAL, SHAFT GROUND	
361	3-315-384-31	WASHER, STOPPER	
362	3-669-465-00	WASHER (1.5), STOPPER	
363	3-686-422-01	WASHER (2X2.7), BOLT HOLE	
364	3-686-493-01	SCREW (M2X5), P1	
365	3-686-535-01	GEAR, NO.8	
366	3-686-539-01	GEAR, NO.9	
367	3-686-540-01	SPRING, TORSION	
368	3-686-702-01	GEAR, DRIVING, GUIDE, SLANT	
369	3-686-724-01	NUT, GUIDE	
370	3-686-886-01	SPRING, TENSION	
371	*3-686-894-01	FLANGE, #3 #4 GUIDE	
372	3-686-912-01	GUIDE, #3 #4	
373	3-699-514-01	SPRING, COMPRESSION	
M901	A-7048-201-A	DRUM ASSY (DGH-35A-R)	

5-5. CASSETTE COMPARTMENT ASSEMBLY (2)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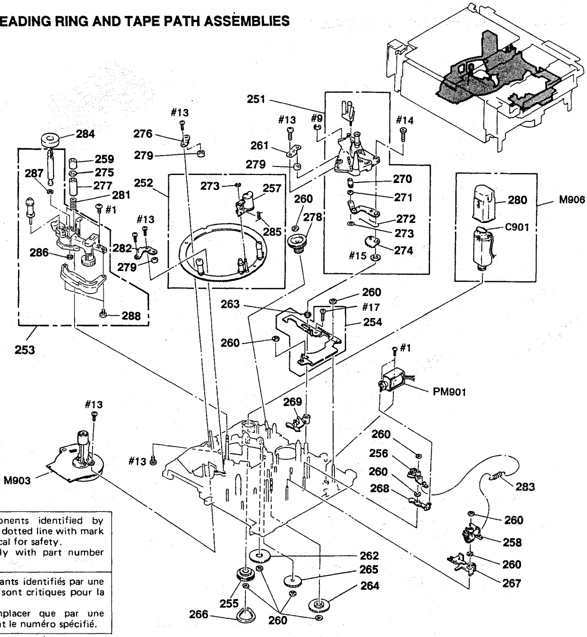
Ref. No.	Part No.	Description	Remark
201	A-7090-645-A	CASSETTE COMPARTMENT BLOCK ASSY	
202	*X-3686-541-1	CLAW ASSY, LOCK	
203	X-3711-930-1	LEVER ASSY, HOLDER	
204	X-3711-931-4	LEVER ASSY, DOOR	
205	*X-3711-932-1	PLATE (R) ASSY, SIDE	
206	*X-3711-937-1	JOINT ASSY	
207	*3-337-402-01	BAND, BINDING	
208	3-533-073-01	WASHER	
209	3-578-265-11	WASHER, STOPPER	
210	3-669-465-00	WASHER (1.5), STOPPER	
211	3-686-692-01	PREVENTION, SLIDER	
212	*3-686-693-01	ROLLER, LOCK	
213	3-686-694-01	SPRING, TORSION	
214	3-696-047-01	SPRING, TENSION	
215	3-713-429-01	GEAR (D)	
216	*3-713-440-01	SHAFT, ROLLER	
217	3-713-442-01	SPRING (RIGHT)	
218	3-713-445-01	SPRING (LEFT)	
219	*3-713-457-01	SHAFT, JOINT	
220	*3-713-458-01	REINFORCEMENT	
221	*3-713-462-03	STOPPER, HOLDER	
222	3-713-466-01	ROLLER	
223	3-713-488-01	SPRINT (2), TORSION	
224	3-724-912-01	PLATE, FUNCTION, LEVER	
225	3-713-620-01	SPRING (1), TORSION	
226	3-713-622-01	SCREW (M1.3X4), TAPPING, 0	
227	3-713-625-01	SHOE, BRAKE	
228	3-713-626-01	COVER, MULTI	
229	3-713-628-01	SPRING, TORSION	
230	3-713-658-01	SPRING	
231	3-716-921-01	SPRING, LEAF	
232	3-719-590-01	ROLLER, ASSIST	
233	3-721-125-01	LEVER, LOCK	
234	3-721-136-01	SLIDER, LOCK	
235	3-721-163-01	SPRING	
236	3-721-166-01	LEVER, SWITCH	
237	3-739-116-01	SCREW (2X3), +PS	
S901	1-570-407-11	SWITCH, SLIDE (CASSETTE LOADING)	
S903	1-553-226-00	SWITCH, LEAF (CASSETTE LOCK)	

5-6. THREADING RING AND TAPE PATH ASSEMBLIES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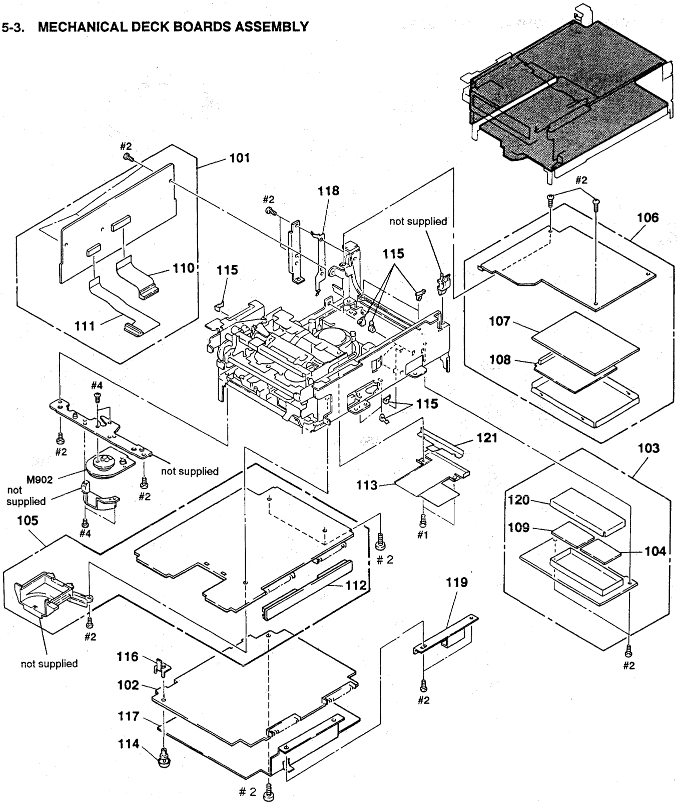
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
251	A-7040-001-A	GUIDE BLOCK ASSY, SLANT	
252	A-7040-123-A	RING ASSY, THREADING	
253	A-7040-169-D	GUIDE (P) ASSY, ENTRANCE	
254	A-7040-199-A	SLIDER (M) BLOCK ASSY, LOCK	
255	X-3686-514-1	GEAR ASSY, NO.1	
256	X-3686-574-1	BRAKE ASSY, MAIN, TAKE-UP	
257	X-3686-576-1	ARM ASSY, PINCH ROLLER	
258	X-3713-429-1	BRAKE ASSY, MAIN, S	
259	3-686-724-01	NUT, GUIDE	
260	3-669-465-00	WASHER (1.5), STOPPER	
261	*3-686-503-01	RETAINER, ROLLER	
262	3-686-508-01	GEAR, NO.2	
263	3-686-537-01	RETAINER, LOCK SLODER	
264	3-686-544-01	GEAR, NO.4	
265	3-686-545-01	GEAR, NO.3	
266	3-686-546-01	BELT, L-MOTOR	
267	*3-686-629-01	SLIDER, SELECTION, UPPER & LOWER	
268	*3-686-635-01	ARM, P	
269	*3-686-636-04	ARM, T.S RELEASE	
270	3-686-663-01	WASHER, STOPPER, 2 GANG	
271	3-701-436-21	WASHER, POLYETHYLENE	
272	3-686-701-01	SPRING	
273	3-315-384-31	WASHER, STOPPER	
274	3-699-509-01	GEAR, SECTOR	
275	*3-686-894-01	FLANGE, #3 #4 GUIDE	
276	*3-686-911-01	PLATE, TOP, ROLLER	
277	3-686-912-01	GUIDE, #3 #4	
278	3-697-518-01	GEAR, NO.10	
279	3-697-538-01	ROLLER, RING	
280	*3-686-757-01	CAP, SHIELD, L MOTOR	
281	3-699-609-01	SPRING, COMPRESSION	
282	*3-686-675-01	STOPPER, RING	
283	3-713-560-01	SPRING, TENSION	
284	3-722-153-01	FLYWHEEL	
285	*3-726-704-01	SPRING, TORSION	
286	3-315-414-00	WASHER	
287	3-578-254-00	RING, RETAINING, E1.2	
288	3-316-938-31	SCREW (B1.4X4), TAPPING	
C901	1-161-057-00	CERAMIC 0.033uF 10% 50V	
M903	8-835-364-01	MOTOR, DC BHF-2802B (CAPSTAN)	
M906	A-7040-065-A	MOTOR ASSY, L (LOADING)	
PM901⚠	1-454-377-31	SOLENOID, PLUNGER	

5-3. MECHANICAL DECK BOARDS ASSEMBLY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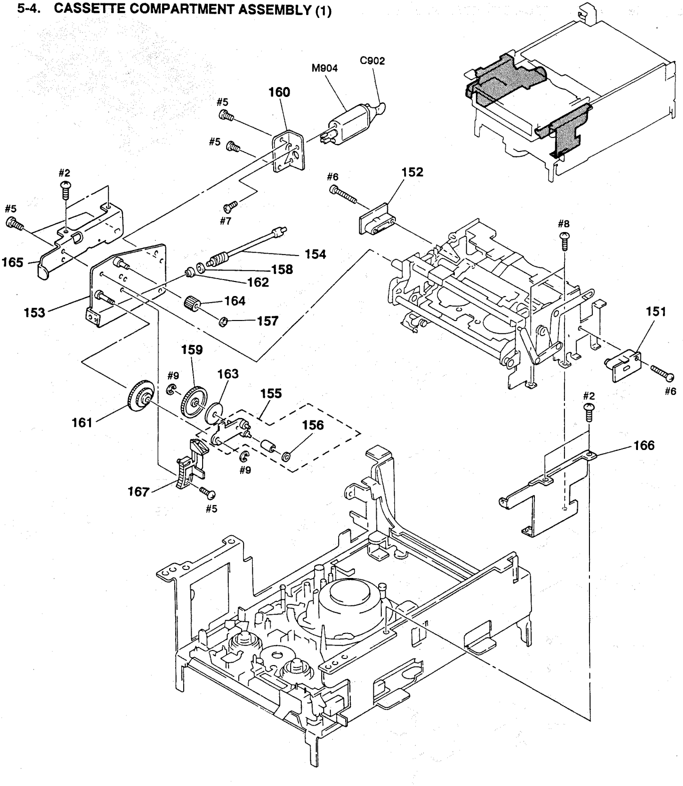
Ref. No.	Part No.	Description	Remark
101	*A-7061-819-A	MD-23 BOARD, COMPLETE	
102	*A-7061-820-A	HK-4 BOARD, COMPLETE	
103	*A-7061-821-A	FR-40 BOARD, COMPLETE	
104	*A-7061-822-A	RP-73 (SP) BOARD, COMPLETE	
105	*A-7061-823-A	SE-10 BOARD, COMPLETE	
106	*A-7062-565-A	MB-19 BOARD, COMPLETE	
107	*A-7062-566-A	PD-19 BOARD, COMPLETE	
108	*A-7061-826-A	PA-27 BOARD, COMPLETE	
109	*A-7061-827-A	RP-73 (LP) BOARD, COMPLETE	
110	*A-7070-624-A	FP-84 BOARD, COMPLETE	
111	*A-7070-625-A	FP-122 BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
112	*A-7070-955-A	IG-4 BOARD, COMPLETE	
113	*X-3749-135-1	COVER BLOCK ASSY, FLEXIBLE	
114	3-531-576-01	RIVET	
115	*3-671-150-11	CLAMP	
116	*3-724-107-01	RETAINER, PC BOARD	
117	*3-940-849-01	PLATE, SHIELD, CORE	
118	*3-724-199-01	PLATE, SUPPORT, MB	
119	*3-738-954-01	STOPPER, HK	
120	*3-739-102-01	LID (H), UPPER, FR SHIELD CASE	
121	3-724-106-01	PLATE, GUARD, FLEXIBLE	
M902	8-835-304-11	MOTOR, DC U-11B (REEL)	

5-4. CASSETTE COMPARTMENT ASSEMBLY (1)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Ref. No.	Part No.	Description	Remark
151	*A-7070-627-A	TS-74 (RIGHT) BOARD, COMPLETE	
152	*A-7070-628-A	TS-74 (LEFT) BOARD, COMPLETE	
153	*X-3711-934-1	PLATE SUB ASSY, BLOCK	
154	X-3711-935-3	SHAFT ASSY, WORM	
155	X-3714-193-1	LEVER ASSY (B), GEAR	
156	3-315-414-31	WASHER	
157	3-669-465-00	WASHER (1.5), STOPPER	
158	3-701-437-11	WASHER	
159	3-713-430-01	GEAR (B)	
160	*3-713-431-01	BRACKET, MOTOR	
161	3-713-433-01	GEAR (A)	
162	3-713-439-01	BEARING	
163	*3-713-441-01	SPRING, LEAF	
164	3-713-452-01	GEAR (C)	
165	*3-724-140-01	BRACKET (LEFT)	
166	*3-724-141-01	BRACKET (RIGHT)	
167	3-724-913-02	RACK	
C902	1-161-057-00	CERAMIC 0.033uF 1% 50V	
M904	X-3711-936-1	MOTOR ASSY, FL (CASSETTE LOADING)	

SECTION 5
EXPLODED VIEWS

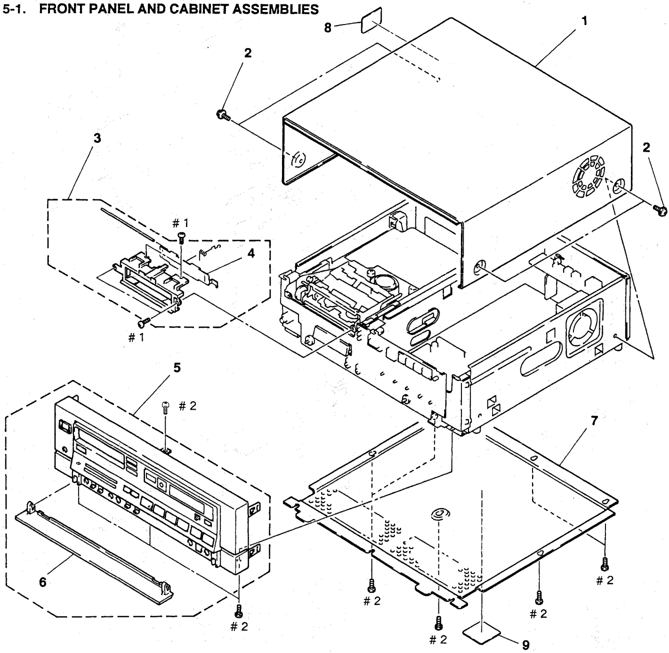
NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

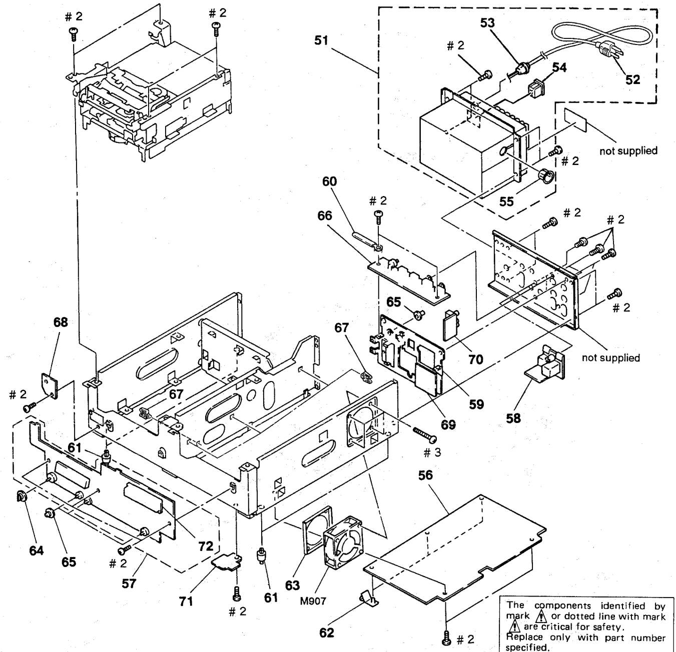
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifé.

5-1. FRONT PANEL AND CABINET ASSEMBLIES



Ref. No.	Part No.	Description	Remark
1	*3-724-167-01	CASE, UPPER	
2	4-886-821-11	SCREW, M3 CASE	
3	*X-3738-905-1	WINDOW ASSY	
4	*3-721-101-71	DOOR	
5	X-3940-639-1	PANEL ASSY, FRONT	
6	X-3940-638-1	DOOR ASSY	
7	*3-724-168-01	PLATE, BOTTOM	
8	3-703-845-01	LABEL (N) (U/C), MAIN CAUTION	
9	3-703-848-01	LABEL (N), SUB CAUTION	

5-2. PC BOARDS AND POWER SUPPLY ASSEMBLIES



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
51	⚠ 1-413-519-11	POWER BLOCK	
52	⚠ A-534-517-81	CORD, POWER (10A 125V)	
53	⚠ 9-995-203-01	BUSHING, CORD	
54	⚠ 1-526-920-12	OUTLET, AC (15A 125V)	
55	9-993-728-01	BUSHING	
56	*A-7062-009-A	IF-20 BOARD, COMPLETE	
57	*A-7062-654-A	FB-169 (P) BOARD, COMPLETE	
58	*1-536-977-11	TERMINAL BOARD UNIT, CONTROL (CONTROL P)	
59	1-537-137-41	TERMINAL BOARD (J501 VIDEO IN, J502 VIDEO OUT, V503 AUDIO IN, J504 AUDIO OUT)	
60	*3-701-822-00	HOLDER, WIRE	
61	3-694-479-01	FOOT	
62	*3-696-448-01	HINGE, SS	
63	*3-697-996-01	BRACKET, FAN	
64	3-724-112-01	KNOB, PHONE	
65	3-724-113-01	KNOB, ADJUST	
66	*1-633-700-11	TR-40 BOARD	
67	*4-314-320-00	HOLDER, WIRE	
68	*1-633-695-11	HE-2 BOARD	
69	*1-633-696-11	JB-4 BOARD	
70	*1-633-697-11	JB-5 BOARD	
71	*1-633-698-11	MJ-5 BOARD	
72	*1-633-699-11	TC-20 BOARD	
M907	1-541-360-21	MOTOR, DC BLUSHLESS FAN	

IF-20

Ref. No.	Part No.	Description	Remark
Q213	8-729-100-66	TRANSISTOR 2SC1623	
Q214	8-729-100-66	TRANSISTOR 2SC1623	
Q215	8-729-100-66	TRANSISTOR 2SC1623	
Q216	8-729-100-66	TRANSISTOR 2SC1623	
Q217	8-729-100-66	TRANSISTOR 2SC1623	
Q220	8-729-100-66	TRANSISTOR 2SC1623	
Q221	8-729-100-66	TRANSISTOR 2SC1623	
Q222	8-729-100-66	TRANSISTOR 2SC1623	
Q223	8-729-100-66	TRANSISTOR 2SC1623	
Q224	8-729-100-66	TRANSISTOR 2SC1623	
Q225	8-729-100-66	TRANSISTOR 2SC1623	
Q226	8-729-320-17	TRANSISTOR 2SA1122CD	
Q227	8-729-100-66	TRANSISTOR 2SC1623	
Q228	8-729-100-66	TRANSISTOR 2SC1623	
Q229	8-729-100-66	TRANSISTOR 2SC1623	
Q230	8-729-100-66	TRANSISTOR 2SC1623	
Q231	8-729-100-66	TRANSISTOR 2SC1623	
Q233	8-729-100-66	TRANSISTOR 2SC1623	
Q234	8-729-100-66	TRANSISTOR 2SC1623	
Q330	8-729-100-66	TRANSISTOR 2SC1623	
Q331	8-729-100-66	TRANSISTOR 2SC1623	
Q332	8-729-100-66	TRANSISTOR 2SC1623	
Q333	8-729-100-66	TRANSISTOR 2SC1623	
Q334	8-729-100-66	TRANSISTOR 2SC1623	
Q335	8-729-100-66	TRANSISTOR 2SC1623	
Q336	8-729-100-66	TRANSISTOR 2SC1623	
Q337	8-729-100-66	TRANSISTOR 2SC1623	
Q338	8-729-100-66	TRANSISTOR 2SC1623	
Q339	8-729-100-66	TRANSISTOR 2SC1623	
Q340	8-729-100-66	TRANSISTOR 2SC1623	
Q341	8-729-100-66	TRANSISTOR 2SC1623	
Q342	8-729-100-66	TRANSISTOR 2SC1623	
Q401	8-729-100-66	TRANSISTOR 2SC1623	
Q402	8-729-100-66	TRANSISTOR 2SC1623	
Q403	8-729-100-66	TRANSISTOR 2SC1623	
Q404	8-729-100-66	TRANSISTOR 2SC1623	
Q405	8-729-100-66	TRANSISTOR 2SC1623	
Q406	8-729-100-66	TRANSISTOR 2SC1623	
Q407	8-729-100-66	TRANSISTOR 2SC1623	
Q408	8-729-100-66	TRANSISTOR 2SC1623	
Q409	8-729-100-66	TRANSISTOR 2SC1623	
Q410	8-729-100-66	TRANSISTOR 2SC1623	
Q411	8-729-100-66	TRANSISTOR 2SC1623	
Q412	8-729-100-66	TRANSISTOR 2SC1623	
Q413	8-729-100-66	TRANSISTOR 2SC1623	
Q414	8-729-100-66	TRANSISTOR 2SC1623	
Q501	8-729-100-66	TRANSISTOR 2SC1623	
Q502	8-729-100-66	TRANSISTOR 2SC1623	
Q503	8-729-901-06	TRANSISTOR DTA144EK	
Q504	8-729-100-66	TRANSISTOR 2SC1623	
Q505	8-729-100-66	TRANSISTOR 2SC1623	
Q506	8-729-100-66	TRANSISTOR 2SC1623	
Q507	8-729-901-06	TRANSISTOR DTA144EK	
Q508	8-729-100-66	TRANSISTOR 2SC1623	
Q509	8-729-100-66	TRANSISTOR 2SC1623	
Q510	8-729-100-66	TRANSISTOR 2SC1623	
Q511	8-729-100-66	TRANSISTOR 2SC1623	
Q512	8-729-100-66	TRANSISTOR 2SC1623	
Q513	8-729-100-66	TRANSISTOR 2SC1623	
Q514	8-729-100-66	TRANSISTOR 2SC1623	
Q515	8-729-100-66	TRANSISTOR 2SC1623	
Q516	8-729-100-66	TRANSISTOR 2SC1623	
Q517	8-729-901-06	TRANSISTOR DTA144EK	
Q518	8-729-100-66	TRANSISTOR 2SC1623	
Q519	8-729-100-66	TRANSISTOR 2SC1623	
Q520	8-729-901-06	TRANSISTOR DTA144EK	
Q521	8-729-901-06	TRANSISTOR DTA144EK	
Q601	8-729-100-66	TRANSISTOR 2SC1623	
Q602	8-729-901-01	TRANSISTOR DTC144EK	
Q603	8-729-100-66	TRANSISTOR 2SC1623	
Q604	8-729-100-66	TRANSISTOR 2SC1623	
Q605	8-729-100-66	TRANSISTOR 2SC1623	
Q606	8-729-100-66	TRANSISTOR 2SC1623	
Q607	8-729-100-66	TRANSISTOR 2SC1623	
Q608	8-729-100-66	TRANSISTOR 2SC1623	
Q609	8-729-100-66	TRANSISTOR 2SC1623	
Q610	8-729-100-66	TRANSISTOR 2SC1623	
Q611	8-729-100-66	TRANSISTOR 2SC1623	
Q612	8-729-901-06	TRANSISTOR DTA144EK	
Q613	8-729-901-01	TRANSISTOR DTC144EK	
Q614	8-729-901-01	TRANSISTOR DTC144EK	
Q615	8-729-901-06	TRANSISTOR DTA144EK	
Q616	8-729-901-06	TRANSISTOR DTA144EK	
Q701	8-729-100-66	TRANSISTOR 2SC1623	

Ref. No.	Part No.	Description	Remark
L214	1-408-979-21	INDUCTOR 56uH	
L215	1-408-972-21	INDUCTOR 15uH	
L332	1-408-979-21	INDUCTOR 56uH	
L334	1-408-979-21	INDUCTOR 56uH	
L335	1-408-975-21	INDUCTOR 27uH	
L402	1-408-979-21	INDUCTOR 56uH	
L403	1-408-979-21	INDUCTOR 56uH	
L501	1-408-962-21	INDUCTOR 2.2uH	
L502	1-408-962-21	INDUCTOR 2.2uH	
L503	1-408-962-21	INDUCTOR 2.2uH	
L505	1-408-979-21	INDUCTOR 56uH	
L506	1-408-979-21	INDUCTOR 56uH	
L601	1-408-989-21	INDUCTOR 470uH	
L602	1-408-979-21	INDUCTOR 56uH	
L603	1-410-071-11	INDUCTOR 10mH	
L701	1-408-979-21	INDUCTOR 56uH	
L702	1-408-979-21	INDUCTOR 56uH	
L705	1-408-964-21	INDUCTOR 3.3uH	
L706	1-408-979-21	INDUCTOR 56uH	
L707	1-408-964-21	INDUCTOR 3.3uH	
L708	1-408-979-21	INDUCTOR 56uH	
L709	1-408-979-21	INDUCTOR 56uH	
L801	1-408-979-21	INDUCTOR 56uH	
L802	1-408-979-21	INDUCTOR 56uH	
		(COIL VARIABLE)	
LV201	1-408-520-00	COIL, VARIABLE 15uH	
LV202	1-408-520-00	COIL, VARIABLE 15uH	
		(TRANSISTOR)	
Q001	8-729-202-38	TRANSISTOR 2SC3326N	
Q002	8-729-202-38	TRANSISTOR 2SC3326N	
Q003	8-729-202-38	TRANSISTOR 2SC3326N	
Q004	8-729-202-38	TRANSISTOR 2SC3326N	
Q005	8-729-202-38	TRANSISTOR 2SC3326N	
Q006	8-729-202-38	TRANSISTOR 2SC3326N	
Q007	8-729-202-38	TRANSISTOR 2SC3326N	
Q008	8-729-202-38	TRANSISTOR 2SC3326N	
Q010	8-729-140-75	TRANSISTOR 2SD999	
Q011	8-729-901-06	TRANSISTOR DTA144EK	
Q051	8-729-202-38	TRANSISTOR 2SC3326N	
Q052	8-729-202-38	TRANSISTOR 2SC3326N	
Q053	8-729-202-38	TRANSISTOR 2SC3326N	
Q054	8-729-202-38	TRANSISTOR 2SC3326N	
Q055	8-729-202-38	TRANSISTOR 2SC3326N	
Q056	8-729-202-38	TRANSISTOR 2SC3326N	
Q057	8-729-202-38	TRANSISTOR 2SC3326N	
Q060	8-729-101-07	TRANSISTOR 2SB798	
Q061	8-729-901-01	TRANSISTOR DTC144EK	
Q165	8-729-901-06	TRANSISTOR DTA144EK	
Q166	8-729-901-01	TRANSISTOR DTC144EK	
Q167	8-729-100-66	TRANSISTOR 2SC1623	
Q168	8-729-901-06	TRANSISTOR DTA144EK	
Q169	8-729-901-06	TRANSISTOR DTA144EK	
Q170	8-729-901-06	TRANSISTOR DTA144EK	
Q171	8-729-901-06	TRANSISTOR DTA144EK	
Q172	8-729-100-66	TRANSISTOR 2SC1623	
Q174	8-729-901-06	TRANSISTOR DTA144EK	
Q175	8-729-901-06	TRANSISTOR DTA144EK	
Q176	8-729-901-06	TRANSISTOR DTA144EK	
Q177	8-729-901-06	TRANSISTOR DTA144EK	
Q178	8-729-901-01	TRANSISTOR DTC144EK	
Q179	8-729-901-06	TRANSISTOR DTA144EK	
Q180	8-729-901-01	TRANSISTOR DTC144EK	
Q181	8-729-901-01	TRANSISTOR DTC144EK	
Q182	8-729-216-22	TRANSISTOR 2SA1162	
Q183	8-729-901-01	TRANSISTOR DTC144EK	
Q184	8-729-901-01	TRANSISTOR DTC144EK	
Q186	8-729-901-06	TRANSISTOR DTA144EK	
Q188	8-729-901-06	TRANSISTOR DTA144EK	
Q191	8-729-216-22	TRANSISTOR 2SA1162	
Q201	8-729-100-66	TRANSISTOR 2SC1623	
Q202	8-729-100-66	TRANSISTOR 2SC1623	
Q203	8-729-100-66	TRANSISTOR 2SC1623	
Q204	8-729-320-17	TRANSISTOR 2SA1122CD	
Q205	8-729-100-66	TRANSISTOR 2SC1623	
Q206	8-729-100-66	TRANSISTOR 2SC1623	
Q207	8-729-100-66	TRANSISTOR 2SC1623	
Q208	8-729-320-17	TRANSISTOR 2SA1122CD	
Q209	8-729-320-17	TRANSISTOR 2SA1122CD	
Q210	8-729-320-17	TRANSISTOR 2SA1122CD	
Q211	8-729-320-17	TRANSISTOR 2SA1122CD	
Q212	8-729-100-66	TRANSISTOR 2SC1623	

IF-20

Ref. No.	Part No.	Description				Remark
R077	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R078	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R079	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R080	1-216-095-00	METAL CHIP	82K	5%	1/10W	
R081	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R082	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R083	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R084	1-216-094-00	METAL GLAZE	75K	5%	1/10W	
R085	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R086	1-216-093-00	METAL CHIP	68K	5%	1/10W	
R088	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R089	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R090	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R091	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R092	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R093	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R094	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R095	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R104	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R106	1-216-295-00	METAL CHIP	0	5%	1/10W	
R109	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R110	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R111	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R112	1-216-093-00	METAL CHIP	68K	5%	1/10W	
R113	1-216-295-00	METAL CHIP	0	5%	1/10W	
R115	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R116	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R118	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R119	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R120	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R121	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R122	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R125	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R126	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R127	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R128	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R129	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R130	1-216-295-00	METAL CHIP	0	5%	1/10W	
R134	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R136	1-216-295-00	METAL CHIP	0	5%	1/10W	
R139	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R140	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R141	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R142	1-216-093-00	METAL CHIP	68K	5%	1/10W	
R143	1-216-295-00	METAL CHIP	0	5%	1/10W	
R145	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R146	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R148	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R149	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R150	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R151	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R152	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R153	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R155	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R156	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R157	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R160	1-216-295-00	METAL CHIP	0	5%	1/10W	
R165	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R166	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R167	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R168	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R169	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R170	1-216-025-00	METAL CHIP	100	5%	1/10W	
R171	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R172	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R173	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R174	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R175	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R176	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R177	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R178	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R179	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R180	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R181	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R182	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R183	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R184	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R185	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R186	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R187	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R188	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R189	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R190	1-216-089-00	METAL CHIP	47K	5%	1/10W	

Ref. No.	Part No.	Description	Remark
Q702	8-729-100-66	TRANSISTOR 2SC1623	
Q703	8-729-202-38	TRANSISTOR 2SC3326N	
Q704	8-729-100-66	TRANSISTOR 2SC1623	
Q705	8-729-100-66	TRANSISTOR 2SC1623	
Q706	8-729-100-66	TRANSISTOR 2SC1623	
Q707	8-729-100-66	TRANSISTOR 2SC1623	
Q708	8-729-100-66	TRANSISTOR 2SC1623	
Q709	8-729-100-66	TRANSISTOR 2SC1623	
Q710	8-729-100-66	TRANSISTOR 2SC1623	
Q711	8-729-100-66	TRANSISTOR 2SC1623	
Q712	8-729-100-66	TRANSISTOR 2SC1623	
Q713	8-729-100-66	TRANSISTOR 2SC1623	
Q714	8-729-100-66	TRANSISTOR 2SC1623	
Q715	8-729-100-66	TRANSISTOR 2SC1623	
Q716	8-729-100-66	TRANSISTOR 2SC1623	
Q717	8-729-100-66	TRANSISTOR 2SC1623	
Q718	8-729-100-66	TRANSISTOR 2SC1623	
Q719	8-729-100-66	TRANSISTOR 2SC1623	
Q720	8-729-100-66	TRANSISTOR 2SC1623	
Q721	8-729-320-17	TRANSISTOR 2SA1122CD	
Q722	8-729-100-66	TRANSISTOR 2SC1623	
Q723	8-729-100-66	TRANSISTOR 2SC1623	
Q724	8-729-100-66	TRANSISTOR 2SC1623	
Q725	8-729-100-66	TRANSISTOR 2SC1623	
Q726	8-729-100-66	TRANSISTOR 2SC1623	
Q727	8-729-216-22	TRANSISTOR 2SA1162	
Q901	8-729-901-01	TRANSISTOR DTC144EK	
Q902	8-729-901-01	TRANSISTOR DTC144EK	
Q903	8-729-901-01	TRANSISTOR DTC144EK	
Q904	8-729-901-01	TRANSISTOR DTC144EK	
Q905	8-729-901-05	TRANSISTOR DTA124EK	
Q906	8-729-100-66	TRANSISTOR 2SC1623	
Q907	8-729-100-66	TRANSISTOR 2SC1623	
Q908	8-729-100-66	TRANSISTOR 2SC1623	
Q909	8-729-100-66	TRANSISTOR 2SC1623	
Q910	8-729-100-66	TRANSISTOR 2SC1623	
Q911	8-729-901-06	TRANSISTOR DTA144EK	

〈 RESISTOR 〉

Ref. No.	Part No.	Description	Remark
R001	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R002	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R003	1-216-095-00	METAL CHIP 82K 5% 1/10W	
R005	1-216-748-11	METAL CHIP 39K 5% 1/10W	
R018	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R019	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R020	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R021	1-216-086-00	METAL GLAZE 36K 5% 1/10W	
R022	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R023	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R024	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R025	1-216-295-00	METAL CHIP 0 5% 1/10W	
R026	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R027	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R028	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R029	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R030	1-216-095-00	METAL CHIP 82K 5% 1/10W	
R031	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R032	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R033	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R034	1-216-094-00	METAL GLAZE 75K 5% 1/10W	
R035	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R036	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R038	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R039	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R040	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R041	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R042	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R043	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R044	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R045	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R046	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R051	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R052	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R053	1-216-095-00	METAL CHIP 82K 5% 1/10W	
R055	1-216-748-11	METAL CHIP 39K 5% 1/10W	
R068	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R069	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R070	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R071	1-216-086-00	METAL GLAZE 36K 5% 1/10W	
R072	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R073	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R074	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R075	1-216-295-00	METAL CHIP 0 5% 1/10W	
R076	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	

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Ref. No.	Part No.	Description	Remark
R288	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R289	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R290	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R291	1-216-045-00	METAL CHIP 680 5% 1/10W	
R292	1-216-045-00	METAL CHIP 680 5% 1/10W	
R293	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R294	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R295	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R296	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R297	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R298	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R299	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R300	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R301	1-216-063-00	METAL CHIP 3.9K 5% 1/10W	
R302	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R303	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R304	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R305	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R307	1-216-041-00	METAL CHIP 470 5% 1/10W	
R308	1-216-045-00	METAL CHIP 680 5% 1/10W	
R309	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R310	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R311	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R312	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R313	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R314	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R315	1-216-045-00	METAL CHIP 680 5% 1/10W	
R316	1-216-045-00	METAL CHIP 680 5% 1/10W	
R317	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R318	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R319	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R320	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R321	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R322	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R330	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R331	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R332	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R333	1-216-041-00	METAL CHIP 470 5% 1/10W	
R334	1-216-737-11	METAL GLAZE 1K 1% 1/10W	
R335	1-216-518-00	METAL GLAZE 2.2K 1% 1/10W	
R336	1-218-149-11	METAL GLAZE 1.1K 1% 1/10W	
R337	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R338	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R339	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R340	1-216-033-00	METAL CHIP 220 5% 1/10W	
R341	1-216-295-00	METAL CHIP 0 5% 1/10W	
R342	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R343	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R344	1-216-295-00	METAL CHIP 0 5% 1/10W	
R345	1-216-041-00	METAL CHIP 470 5% 1/10W	
R346	1-216-041-00	METAL CHIP 470 5% 1/10W	
R348	1-216-043-00	METAL CHIP 560 5% 1/10W	
R349	1-216-043-00	METAL CHIP 560 5% 1/10W	
R350	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R351	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R352	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R353	1-216-737-11	METAL GLAZE 1K 1% 1/10W	
R354	1-218-152-11	METAL GLAZE 1.5K 1% 1/10W	
R355	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R356	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R357	1-216-295-00	METAL CHIP 0 5% 1/10W	
R358	1-216-041-00	METAL CHIP 470 5% 1/10W	
R359	1-216-041-00	METAL CHIP 470 5% 1/10W	
R361	1-216-042-00	METAL CHIP 510 5% 1/10W	
R362	1-216-043-00	METAL CHIP 560 5% 1/10W	
R363	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R364	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R365	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R366	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R367	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R368	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R369	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R370	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R371	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R372	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R373	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R374	1-216-737-11	METAL GLAZE 1K 1% 1/10W	
R375	1-218-150-11	METAL GLAZE 1.2K 1% 1/10W	
R376	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R377	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R378	1-216-041-00	METAL CHIP 470 5% 1/10W	
R379	1-216-295-00	METAL CHIP 0 5% 1/10W	
R380	1-216-041-00	METAL CHIP 470 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R192	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R193	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R201	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R202	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R203	1-216-031-00	METAL CHIP 180 5% 1/10W	
R204	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R205	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R206	1-216-043-00	METAL CHIP 560 5% 1/10W	
R207	1-216-043-00	METAL CHIP 560 5% 1/10W	
R208	1-216-043-00	METAL CHIP 560 5% 1/10W	
R209	1-216-043-00	METAL CHIP 560 5% 1/10W	
R210	1-216-043-00	METAL CHIP 560 5% 1/10W	
R211	1-216-043-00	METAL CHIP 560 5% 1/10W	
R212	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R213	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R214	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R215	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R216	1-216-038-00	METAL CHIP 360 5% 1/10W	
R217	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R218	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R219	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R220	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R221	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R222	1-216-295-00	METAL CHIP 0 5% 1/10W	
R223	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R224	1-216-041-00	METAL CHIP 470 5% 1/10W	
R225	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R226	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R227	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R228	1-216-645-11	METAL CHIP 560 0.5% 1/10W	
R229	1-216-645-11	METAL CHIP 560 0.5% 1/10W	
R230	1-216-041-00	METAL CHIP 470 5% 1/10W	
R231	1-216-041-00	METAL CHIP 470 5% 1/10W	
R232	1-216-047-00	METAL CHIP 820 5% 1/10W	
R233	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R234	1-216-037-00	METAL CHIP 330 5% 1/10W	
R235	1-216-033-00	METAL CHIP 220 5% 1/10W	
R236	1-216-033-00	METAL CHIP 220 5% 1/10W	
R237	1-216-037-00	METAL CHIP 330 5% 1/10W	
R238	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R239	1-216-047-00	METAL CHIP 820 5% 1/10W	
R240	1-216-047-00	METAL CHIP 820 5% 1/10W	
R241	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R242	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R243	1-216-111-00	METAL CHIP 390K 5% 1/10W	
R244	1-216-041-00	METAL CHIP 470 5% 1/10W	
R245	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R246	1-216-043-00	METAL CHIP 560 5% 1/10W	
R247	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R248	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R249	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R250	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R251	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R252	1-216-045-00	METAL CHIP 680 5% 1/10W	
R253	1-216-047-00	METAL CHIP 820 5% 1/10W	
R254	1-216-047-00	METAL CHIP 820 5% 1/10W	
R255	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R256	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R257	1-216-649-11	METAL CHIP 820 0.5% 1/10W	
R258	1-216-649-11	METAL CHIP 820 0.5% 1/10W	
R259	1-216-041-00	METAL CHIP 470 5% 1/10W	
R260	1-216-041-00	METAL CHIP 470 5% 1/10W	
R261	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R262	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R263	1-216-044-00	METAL CHIP 620 5% 1/10W	
R264	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R265	1-216-041-00	METAL CHIP 470 5% 1/10W	
R266	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R267	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R268	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R269	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R270	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R271	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R272	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R273	1-216-043-00	METAL CHIP 560 5% 1/10W	
R274	1-216-043-00	METAL CHIP 560 5% 1/10W	
R275	1-216-045-00	METAL CHIP 680 5% 1/10W	
R276	1-216-045-00	METAL CHIP 680 5% 1/10W	
R283	1-216-041-00	METAL CHIP 470 5% 1/10W	
R284	1-216-045-00	METAL CHIP 680 5% 1/10W	
R285	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R286	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R287	1-216-077-00	METAL CHIP 15K 5% 1/10W	

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Ref. No.	Part No.	Description				Remark
R530	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R531	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R532	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R533	1-216-621-11	METAL CHIP	56	0.50%	1/10W	
R534	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R535	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R536	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R537	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R538	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R539	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R540	1-216-295-00	METAL CHIP	0	5%	1/10W	
R541	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R542	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R543	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R544	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R545	1-216-518-00	METAL GLAZE	2.2K	1%	1/10W	
R546	1-216-518-00	METAL GLAZE	2.2K	1%	1/10W	
R547	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R548	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R549	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R550	1-218-156-11	METAL GLAZE	8.2K	1%	1/10W	
R551	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R552	1-216-327-11	METAL GLAZE	2K	1%	1/10W	
R553	1-216-327-11	METAL GLAZE	2K	1%	1/10W	
R554	1-216-047-00	METAL CHIP	820	5%	1/10W	
R555	1-216-295-00	METAL CHIP	0	5%	1/10W	
R556	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R557	1-216-295-00	METAL CHIP	0	5%	1/10W	
R558	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R559	1-216-518-00	METAL GLAZE	2.2K	1%	1/10W	
R560	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R561	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R562	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R563	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R564	1-216-333-11	METAL CHIP	15K	1%	1/10W	
R601	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R602	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R603	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R605	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R606	1-216-041-00	METAL CHIP	470	5%	1/10W	
R607	1-216-037-00	METAL CHIP	330	5%	1/10W	
R608	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R609	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R610	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R611	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R612	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R613	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R614	1-216-037-00	METAL CHIP	330	5%	1/10W	
R615	1-216-041-00	METAL CHIP	470	5%	1/10W	
R616	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R617	1-216-048-00	METAL CHIP	910	5%	1/10W	
R618	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R619	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R620	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R621	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R622	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R623	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R624	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R625	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R626	1-216-039-00	METAL CHIP	390	5%	1/10W	
R627	1-216-041-00	METAL CHIP	470	5%	1/10W	
R628	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R629	1-216-037-00	METAL CHIP	330	5%	1/10W	
R632	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R633	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R634	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R635	1-216-031-00	METAL CHIP	180	5%	1/10W	
R636	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R637	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R638	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R639	1-216-041-00	METAL CHIP	470	5%	1/10W	
R640	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R641	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R642	1-216-093-00	METAL CHIP	68K	5%	1/10W	
R643	1-216-043-00	METAL CHIP	560	5%	1/10W	
R644	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R645	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R646	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R701	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R702	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R703	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R704	1-216-036-00	METAL CHIP	300	5%	1/10W	
R705	1-216-045-00	METAL CHIP	680	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R382	1-216-041-00	METAL CHIP	470	5%	1/10W	
R383	1-216-043-00	METAL CHIP	560	5%	1/10W	
R384	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R385	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R386	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R391	1-216-025-00	METAL CHIP	100	5%	1/10W	
R392	1-216-025-00	METAL CHIP	100	5%	1/10W	
R393	1-216-025-00	METAL CHIP	100	5%	1/10W	
R401	1-216-723-11	METAL GLAZE	5.6K	1%	1/10W	
R402	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R403	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R404	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R405	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R406	1-216-041-00	METAL CHIP	470	5%	1/10W	
R408	1-218-142-11	METAL GLAZE	470	1%	1/10W	
R409	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R410	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R411	1-216-043-00	METAL CHIP	560	5%	1/10W	
R412	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R413	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R414	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R415	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R416	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R417	1-216-041-00	METAL CHIP	470	5%	1/10W	
R418	1-216-041-00	METAL CHIP	470	5%	1/10W	
R419	1-216-045-00	METAL CHIP	680	5%	1/10W	
R420	1-216-043-00	METAL CHIP	560	5%	1/10W	
R421	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R422	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R423	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R424	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R425	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R426	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R427	1-216-041-00	METAL CHIP	470	5%	1/10W	
R428	1-218-142-11	METAL GLAZE	470	1%	1/10W	
R429	1-216-295-00	METAL CHIP	0	5%	1/10W	
R430	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R431	1-216-043-00	METAL CHIP	560	5%	1/10W	
R432	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R433	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R434	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R435	1-216-077-00	METAL CHIP	15K	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R436	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R437	1-216-041-00	METAL CHIP	470	5%	1/10W	
R438	1-216-041-00	METAL CHIP	470	5%	1/10W	
R439	1-216-045-00	METAL CHIP	680	5%	1/10W	
R440	1-216-043-00	METAL CHIP	560	5%	1/10W	
R441	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R442	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R443	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R444	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R445	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R446	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R447	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R448	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R501	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R502	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R503	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R504	1-218-156-11	METAL GLAZE	8.2K	1%	1/10W	
R505	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R506	1-216-327-11	METAL GLAZE	2K	1%	1/10W	
R507	1-216-327-11	METAL GLAZE	2K	1%	1/10W	
R508	1-216-047-00	METAL CHIP	820	5%	1/10W	
R509	1-216-295-00	METAL CHIP	0	5%	1/10W	
R510	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R511	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R512	1-216-295-00	METAL CHIP	0	5%	1/10W	
R513	1-216-518-00	METAL GLAZE	2.2K	1%	1/10W	
R514	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R515	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R516	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R517	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R518	1-218-156-11	METAL GLAZE	8.2K	1%	1/10W	
R519	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R520	1-216-327-11	METAL GLAZE	2K	1%	1/10W	
R521	1-216-327-11	METAL GLAZE	2K	1%	1/10W	
R522	1-216-047-00	METAL CHIP	820	5%	1/10W	
R523	1-216-295-00	METAL CHIP	0	5%	1/10W	
R524	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R525	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R526	1-216-295-00	METAL CHIP	0	5%	1/10W	
R527	1-216-518-00	METAL GLAZE	2.2K	1%	1/10W	
R528	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R529	1-216-079-00	METAL CHIP	18K	5%	1/10W	

Ref. No.	Part No.	Description	Remark
R794	1-216-295-00	METAL CHIP 0 5% 1/10W	
R795	1-216-025-00	METAL CHIP 100 5% 1/10W	
R796	1-216-025-00	METAL CHIP 100 5% 1/10W	
R802	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R803	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R804	1-216-022-00	METAL CHIP 75 5% 1/10W	
R806	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R807	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R808	1-216-022-00	METAL CHIP 75 5% 1/10W	
R809	1-216-015-00	METAL CHIP 39 5% 1/10W	
R810	1-216-015-00	METAL CHIP 39 5% 1/10W	
R811	1-216-015-00	METAL CHIP 39 5% 1/10W	
R812	1-216-015-00	METAL CHIP 39 5% 1/10W	
R814	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R815	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R816	1-216-022-00	METAL CHIP 75 5% 1/10W	
R818	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R819	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R820	1-216-022-00	METAL CHIP 75 5% 1/10W	
R821	1-216-015-00	METAL CHIP 39 5% 1/10W	
R822	1-216-015-00	METAL CHIP 39 5% 1/10W	
R823	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R824	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R901	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R902	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R903	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R904	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R906	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R907	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R908	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R909	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R910	1-216-107-00	METAL CHIP 270K 5% 1/10W	
R911	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R912	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R913	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R914	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R915	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R916	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R917	1-216-025-00	METAL CHIP 100 5% 1/10W	
R918	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R919	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R920	1-216-031-00	METAL CHIP 180 5% 1/10W	
R921	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R922	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R923	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R924	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R925	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R926	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R927	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R928	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R929	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	

(VARIABLE RESISTOR)

Ref. No.	Part No.	Description	Remark
RV201	1-230-519-11	RES, ADJ, METAL 470	
RV202	1-230-520-11	RES, ADJ, METAL 1K	
RV203	1-230-520-11	RES, ADJ, METAL 1K	
RV204	1-230-519-11	RES, ADJ, METAL 470	
RV205	1-230-521-11	RES, ADJ, METAL 2.2K	
RV401	1-230-519-11	RES, ADJ, METAL 470	
RV402	1-230-519-11	RES, ADJ, METAL 470	
RV601	1-230-520-11	RES, ADJ, METAL 1K	
RV602	1-230-520-11	RES, ADJ, METAL 1K	
RV702	1-230-522-11	RES, ADJ, METAL 4.7K	
RV703	1-230-521-11	RES, ADJ, METAL 2.2K	
RV704	1-230-531-11	RES, ADJ, METAL GLAZE 220	
RV705	1-230-519-11	RES, ADJ, METAL 470	
RV706	1-230-522-11	RES, ADJ, METAL 4.7K	
RV707	1-230-519-11	RES, ADJ, METAL 470	
RV708	1-230-519-11	RES, ADJ, METAL 470	
RV901	1-230-523-11	RES, ADJ, METAL 10K	

(THERMISTOR)

Ref. No.	Part No.	Description	Remark
TH701	1-800-200-00	THERMISTOR S-3K	

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* 1-633-696-11 JB-4 BOARD

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(CAPACITOR)

Ref. No.	Part No.	Description	Remark
C501	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C502	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C503	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	

Ref. No.	Part No.	Description				Remark
R706	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R707	1-216-041-00	METAL CHIP	470	5%	1/10W	
R708	1-216-052-00	METAL CHIP	1.3K	5%	1/10W	
R709	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R710	1-216-033-00	METAL CHIP	220	5%	1/10W	
R711	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R712	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R713	1-216-043-00	METAL CHIP	560	5%	1/10W	
R714	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R715	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R716	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R717	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R718	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R720	1-216-047-00	METAL CHIP	820	5%	1/10W	
R721	1-216-044-00	METAL CHIP	620	5%	1/10W	
R722	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R723	1-216-295-00	METAL CHIP	0	5%	1/10W	
R724	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R725	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R726	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R727	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R728	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R729	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R730	1-216-047-00	METAL CHIP	820	5%	1/10W	
R732	1-216-041-00	METAL CHIP	470	5%	1/10W	
R733	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R734	1-216-041-00	METAL CHIP	470	5%	1/10W	
R735	1-216-295-00	METAL CHIP	0	5%	1/10W	
R736	1-216-041-00	METAL CHIP	470	5%	1/10W	
R737	1-216-035-00	METAL CHIP	270	5%	1/10W	
R738	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R739	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R740	1-216-295-00	METAL CHIP	0	5%	1/10W	
R741	1-216-047-00	METAL CHIP	820	5%	1/10W	
R742	1-216-043-00	METAL CHIP	560	5%	1/10W	
R743	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R744	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R745	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R746	1-216-045-00	METAL CHIP	680	5%	1/10W	
R747	1-216-043-00	METAL CHIP	560	5%	1/10W	
R748	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R749	1-216-045-00	METAL CHIP	680	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R750	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R751	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R752	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R753	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R754	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R755	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R756	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R757	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R758	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R759	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R760	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R761	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R762	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R763	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R764	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R765	1-216-041-00	METAL CHIP	470	5%	1/10W	
R767	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R768	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R769	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R770	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R771	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R772	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R773	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R774	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R775	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R776	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R777	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R778	1-216-033-00	METAL CHIP	220	5%	1/10W	
R779	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R780	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R781	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R782	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R783	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R784	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R785	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R786	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R787	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R788	1-216-737-11	METAL GLAZE	1K	1%	1/10W	
R789	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R790	1-216-033-00	METAL CHIP	220	5%	1/10W	
R793	1-216-295-00	METAL CHIP	0	5%	1/10W	

MB-19

Ref. No.	Part No.	Description	Remark
		(CONNECTOR)	
CN601	1-566-943-11	CONNECTOR, BOARD TO BOARD 18P	
CN602	1-566-944-11	CONNECTOR, BOARD TO BOARD 22P	
CN603	1-506-467-11	CONNECTOR 2P, MALE	
CN605	1-506-473-11	CONNECTOR 8P, MALE	
CN606	1-506-470-11	CONNECTOR 5P, MALE	
CN923	1-506-474-11	CONNECTOR 9P, MALE	
CN924	1-506-473-11	CONNECTOR 8P, MALE	
		(DIODE)	
D601	8-719-104-34	DIODE 1S2836	
D602	8-719-104-34	DIODE 1S2836	
D603	8-719-104-34	DIODE 1S2836	
D604	8-719-400-18	DIODE MA152WK	
D641	8-719-800-76	DIODE 1SS226	
D642	8-719-800-76	DIODE 1SS226	
		(IC)	
IC601	8-759-149-34	IC uPD75106G-591-1B	
IC603	8-759-300-71	IC TC4053BFHB	
IC651	8-759-603-27	IC M5201FP	
IC661	8-759-603-27	IC M5201FP	
IC671	8-741-150-50	IC SBX1505	
		(COIL)	
L601	1-408-970-21	INDUCTOR 10uH	
L602	1-408-970-21	INDUCTOR 10uH	
L603	1-408-970-21	INDUCTOR 10uH	
L604	1-408-948-00	INDUCTOR 220uH	
L605	1-408-948-00	INDUCTOR 220uH	
L641	1-410-393-11	INDUCTOR CHIP 100uH	
L671	1-408-948-00	INDUCTOR 220uH	
		(TRANSISTOR)	
Q601	8-729-901-06	TRANSISTOR DTA144EK	
Q602	8-729-901-01	TRANSISTOR DTC144EK	
Q603	8-729-901-01	TRANSISTOR DTC144EK	
Q604	8-729-901-01	TRANSISTOR DTC144EK	
Q605	8-729-901-06	TRANSISTOR DTA144EK	
Q606	8-729-901-06	TRANSISTOR DTA144EK	
Q607	8-729-901-01	TRANSISTOR DTC144EK	

Ref. No.	Part No.	Description	Remark
Q608	8-729-901-01	TRANSISTOR DTC144EK	
Q609	8-729-901-06	TRANSISTOR DTA144EK	
Q671	8-729-100-66	TRANSISTOR 2SC1623	
		(RESISTOR)	
R601	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R602	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R603	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R604	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R611	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R612	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R613	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R614	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R615	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R616	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R617	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R618	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R619	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R625	1-216-041-00	METAL CHIP 470 5% 1/10W	
R626	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R627	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R628	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R629	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R630	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R631	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R632	1-216-041-00	METAL CHIP 470 5% 1/10W	
R633	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R634	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R635	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R636	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R637	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R638	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R639	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R641	1-216-072-00	METAL CHIP 9.1K 5% 1/10W	
R642	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R643	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R644	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R645	1-216-072-00	METAL CHIP 9.1K 5% 1/10W	
R646	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R647	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R648	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R649	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
C504	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
		**	
	* 1-633-697-11	JB-5 BOARD	
		**********	
		(CAPACITOR)	
C301	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C302	1-124-584-00	ELECT 100uF 20% 10V	
C303	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
		(CONNECTOR)	
CN301	1-506-470-11	CONNECTOR 5P, MALE	
		(DIODE)	
D301	8-719-800-76	DIODE 1SS226	
		(JACK)	
J301	1-537-005-21	JACK BOARD (VIDEO/AUDIO/RFU DC OUT)	
		(TRANSISTOR)	
Q301	8-729-216-22	TRANSISTOR 2SA1162	
		(RESISTOR)	
R301	1-216-001-00	METAL CHIP 10 5% 1/10W	
R302	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
		**	
	* A-7070-024-A	LD-1 BOARD, COMPLETE	
		********************	
	* 1-613-367-11	LD-1 BOARD	
		(DIODE)	
D901	8-719-928-54	DIODE GL-450S	
		**	
		LS-9 BOARD, COMPLETE	
		********************	
	1-506-485-11	CONNECTOR 6P, MALE	
		**	
	* A-7062-565-A	MB-19 BOARD, COMPLETE	
		*********************	
	* 4-911-047-01	VIBRATION CONTROL (D)	
		(CAPACITOR)	
C601	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C602	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C603	1-163-093-00	CERAMIC CHIP 10PF 5% 50V	
C604	1-163-093-00	CERAMIC CHIP 10PF 5% 50V	
C605	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C606	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C607	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C608	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C609	1-124-234-00	ELECT 22uF 20% 16V	
C610	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C641	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C651	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V	
C652	1-124-234-00	ELECT 22uF 20% 16V	
C653	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C661	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V	
C662	1-124-234-00	ELECT 22uF 20% 16V	
C663	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C671	1-124-584-00	ELECT 100uF 20% 10V	
C672	1-135-091-00	TANTALUM CHIP 1uF 20% 16V	
C673	1-124-584-00	ELECT 100uF 20% 10V	
C674	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C675	1-163-019-00	CERAMIC CHIP 0.0068uF 10% 50V	
C676	1-124-584-00	ELECT 100uF 20% 10V	
C677	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C678	1-124-584-00	ELECT 100uF 20% 10V	
C679	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C680	1-135-155-21	TANTALUM CHIP 4.7uF 10% 10V	
C681	1-124-584-00	ELECT 100uF 20% 10V	
C682	1-135-157-21	TANTALUM CHIP 10uF 20% 6.3V	
C683	1-164-232-11	CERAMIC CHIP 0.01uF 50V	

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Ref. No.	Part No.	Description				Remark
C824	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C825	1-126-162-11	ELECT	3.3uF	20%	50V	
C833	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C834	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C835	1-126-501-11	ELECT	0.15uF	20%	50V	
C836	1-164-157-11	CERAMIC CHIP	0.068uF	10%	25V	
C837	1-124-464-11	ELECT	0.22uF	20%	50V	
C838	1-124-589-11	ELECT	47uF	20%	16V	
C839	1-126-529-11	ELECT	0.47uF	20%	50V	
C840	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C841	1-124-589-11	ELECT	47uF	20%	16V	
C901	1-124-234-00	ELECT	22uF	20%	16V	
C902	1-124-234-00	ELECT	22uF	20%	16V	
C903	1-124-234-00	ELECT	22uF	20%	16V	
C904	1-124-234-00	ELECT	22uF	20%	16V	
C905	1-124-257-00	ELECT	2.2uF	20%	50V	
C906	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C907	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C908	1-126-096-11	ELECT	10uF	20%	35V	
C909	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V	
C910	1-130-491-00	MYLAR	0.047uF	5%	50V	
C911	1-130-491-00	MYLAR	0.047uF	5%	50V	
C912	1-130-483-00	MYLAR	0.01uF	5%	50V	
C913	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C914	1-124-589-11	ELECT	47uF	20%	16V	
C915	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C916	1-126-530-11	ELECT	22uF	20%	10V	
C917	1-126-530-11	ELECT	22uF	20%	10V	
C918	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C919	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C950	1-164-157-11	CERAMIC CHIP	0.068uF	10%	25V	
C991	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C992	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C993	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
		(CONNECTOR)				
CN801	1-506-483-21	CONNECTOR 4P, MALE				
CN803	1-506-481-11	CONNECTOR 2P, MALE				
CN804	1-506-484-11	CONNECTOR 5P, MALE				
CN805	1-506-469-11	CONNECTOR 4P, MALE				
CN806	1-506-469-11	CONNECTOR 4P, MALE				

Ref. No.	Part No.	Description	Remark
CN807	1-566-527-11	CONNECTOR, FPC (ZIF) 11P	
CN808	1-566-531-11	CONNECTOR, FPC (ZIF) 15P	
CN809	1-566-945-11	CONNECTOR, BOARD TO BOARD 18P	
CN810	1-566-946-11	CONNECTOR, BOARD TO BOARD 22P	
CN811	* 1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
CN812	1-566-942-11	CONNECTOR, HINGE (RECEPTACLE) 30P	
CN814	* 1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
		(DIODE)	
D803	8-719-200-27	DIODE E10DS2	
D810	8-719-400-18	DIODE MA152WK	
D811	8-719-200-27	DIODE E10DS2	
D901	8-719-400-18	DIODE MA152WK	
D902	8-719-400-18	DIODE MA152WK	
D903	8-719-400-18	DIODE MA152WK	
D904	8-719-800-76	DIODE 1SS226	
D905	8-719-400-18	DIODE MA152WK	
		(IC)	
IC801	8-752-037-08	IC CXA1109M	
IC802	8-759-802-79	IC LB1616M	
IC804	8-759-514-98	IC RC3414M	
IC805	8-759-100-93	IC uPC393G2	
IC806	8-759-207-00	IC TA7733F	
IC807	8-759-107-68	IC CX20115A	
IC808	8-759-700-62	IC NJM4562M	
IC809	8-759-100-94	IC uPC358G2	
IC901	8-759-207-50	IC TA7745F	
IC902	8-759-150-05	IC uPC324G2	
IC903	8-759-925-66	IC BA6303F	
IC904	8-759-008-67	IC TC4066BF	
		(COIL)	
L991	1-408-777-00	INDUCTOR CHIP 10uH	
		(LINK IC)	
PS801	⚠ 1-532-685-00	LINK, IC (0.8A/125V)	
		(TRANSISTOR)	
Q806	8-729-111-14	TRANSISTOR 2SA1385-Z	
Q807	8-729-901-06	TRANSISTOR DTA144EK	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
R651	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R652	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R653	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R654	1-216-047-00	METAL CHIP 820 5% 1/10W	
R655	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R656	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R657	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R661	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R662	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R663	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R664	1-216-047-00	METAL CHIP 820 5% 1/10W	
R665	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R666	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R667	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R671	1-216-295-00	METAL CHIP 0 5% 1/10W	
R672	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R673	1-216-052-00	METAL CHIP 1.3K 5% 1/10W	
R674	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R675	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R676	1-216-045-00	METAL CHIP 680 5% 1/10W	
R677	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R678	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R679	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R680	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R681	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R682	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R683	1-216-089-00	METAL CHIP 47K 5% 1/10W	
		(VARIABLE RESISTOR)	
RV031	1-230-521-11	RES, ADJ, METAL 2.2K	
RV032	1-230-529-11	RES, ADJ, METAL 470K	
RV051	1-230-524-11	RES, ADJ, METAL 22K	
RV052	1-230-521-11	RES, ADJ, METAL 2.2K	
		(SWITCH)	
S641	1-554-371-51	SWITCH, TACT (EJECT)	
S642	1-554-371-51	SWITCH, TACT (PB)	
S643	1-554-371-51	SWITCH, TACT (PAUSE)	
S644	1-554-371-51	SWITCH, TACT (REW)	
S645	1-554-371-51	SWITCH, TACT (STOP)	
S646	1-554-371-51	SWITCH, TACT (REC)	
S647	1-554-371-51	SWITCH, TACT (FF)	

Ref. No.	Part No.	Description	Remark
S648	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE) (POWER)	
S649	1-554-371-51	SWITCH, TACT (X-1)	
		(FILTER)	
T603	1-235-398-11	BPF	
T651	1-235-900-11	FILTER, LOW PASS	
T661	1-235-900-11	FILTER, LOW PASS	
		(CRYSTAL)	
X601	1-567-121-00	VIBRATOR, CRYSTAL (4.19MHz)	

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Ref. No.	Part No.	Description	Remark
*	A-7061-819-A	MD-23 BOARD, COMPLETE *********************	
	1-625-649-11	FP-84 FLEXIBLE BOARD	
	1-625-650-11	FP-122 FLEXIBLE BOARD	
		(CAPACITOR)	
C801	1-124-465-00	ELECT 0.47uF 20% 50V	
C802	1-124-464-11	ELECT 0.22uF 20% 50V	
C803	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C804	1-126-160-11	ELECT 1uF 20% 50V	
C805	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C806	1-126-151-11	ELECT, NONPOLAR4.7uF 20% 16V	
C808	1-126-162-11	ELECT 3.3uF 20% 50V	
C809	1-124-584-00	ELECT 100uF 20% 10V	
C810	1-126-096-11	ELECT 10uF 20% 35V	
C811	1-126-096-11	ELECT 10uF 20% 35V	
C812	1-126-096-11	ELECT 10uF 20% 35V	
C813	1-126-160-11	ELECT 1uF 20% 50V	
C814	1-126-160-11	ELECT 1uF 20% 50V	
C815	1-126-160-11	ELECT 1uF 20% 50V	
C816	1-124-229-00	ELECT 33uF 20% 10V	
C817	1-124-229-00	ELECT 33uF 20% 10V	
C818	1-124-229-00	ELECT 33uF 20% 10V	
C819	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C820	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C821	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C822	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C823	1-163-038-00	CERAMIC CHIP 0.1uF 25V	

Ref. No.	Part No.	Description	Remark
R912	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R913	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R916	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R917	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R918	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R919	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R920	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R921	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R922	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R923	1-216-748-11	METAL CHIP 39K 5% 1/10W	
R924	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R925	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R926	1-216-109-00	METAL CHIP 330K 5% 1/10W	
R927	1-216-117-00	METAL CHIP 680K 5% 1/10W	
R928	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R929	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R951	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R952	1-216-063-00	METAL CHIP 3.9K 5% 1/10W	
R953	1-214-972-00	METAL 0.22 1% 1/4W	
R955	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R991	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R992	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R993	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R994	1-216-295-00	METAL CHIP 0 5% 1/10W	
R996	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R997	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R998	1-216-049-00	METAL CHIP 1K 5% 1/10W	
		(VARIABLE RESISTOR)	
RV801	1-230-520-11	RES, ADJ, METAL 1K	
RV802	1-230-523-11	RES, ADJ, METAL 10K	
RV803	1-230-527-11	RES, ADJ, METAL 100K	
RV901	1-230-529-11	RES, ADJ, METAL 470K	
		(THERMISTOR)	
THP801	1-202-854-00	THERMISTOR (POSITIVE)	
		(CONNECTOR)	
W801	1-562-880-11	CONNECTOR, CARD EDGE 15P	
W901	1-562-880-11	CONNECTOR, CARD EDGE 15P	

Ref. No.	Part No.	Description	Remark
***			
*	1-633-698-11	MJ-25 BOARD ***********	
		(CAPACITOR)	
C601	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
		(CONNECTOR)	
CN601	1-506-468-11	CONNECTOR 3P, MALE	
		(DIODE)	
D601	8-719-106-80	DIODE RD13M-B1	
		(JACK)	
J601	1-507-995-21	JACK, MICROPHONE (MIC/⊘)	
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	A-7040-159-A	MS-4 BOARD, COMPLETE ********************	
	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
	1-506-485-11	CONNECTOR 6P, MALE	
***			
*	A-7061-826-A	PA-27 BOARD, COMPLETE *********************	
		(CAPACITOR)	
C001	1-163-012-00	CERAMIC CHIP 0.0018uF 10% 50V	
C002	1-124-584-00	ELECT 100uF 20% 10V	
C003	1-126-154-11	ELECT 47uF 20% 6.3V	
C004	1-126-154-11	ELECT 47uF 20% 6.3V	
C005	1-130-490-11	MYLAR 0.039uF 5% 50V	
C006	1-163-125-00	CERAMIC CHIP 220PF 5% 50V	
C007	1-130-479-00	MYLAR 0.0047uF 5% 50V	
C008	1-126-154-11	ELECT 47uF 20% 6.3V	
C009	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	
C010	1-126-154-11	ELECT 47uF 20% 6.3V	

Ref. No.	Part No.	Description	Remark
Q809	8-729-111-95	TRANSISTOR 2SC3518	
Q810	8-729-805-25	TRANSISTOR 2SB1121	
Q811	8-729-805-25	TRANSISTOR 2SB1121	
Q812	8-729-111-14	TRANSISTOR 2SA1385-Z	
Q813	8-729-100-66	TRANSISTOR 2SC1623	
Q820	8-729-111-95	TRANSISTOR 2SC3518	
Q821	8-729-100-66	TRANSISTOR 2SC1623	
Q880	8-729-100-66	TRANSISTOR 2SC1623	
Q901	8-729-920-82	TRANSISTOR 2SB1188-QR	
Q902	8-729-920-82	TRANSISTOR 2SB1188-QR	
Q903	8-729-920-82	TRANSISTOR 2SB1188-QR	
Q904	8-729-901-06	TRANSISTOR DTA144EK	
Q905	8-729-901-06	TRANSISTOR DTA144EK	
Q906	8-729-901-01	TRANSISTOR DTC144EK	
Q907	8-729-901-01	TRANSISTOR DTC144EK	
Q908	8-729-901-01	TRANSISTOR DTC144EK	
Q909	8-729-901-06	TRANSISTOR DTA144EK	
Q950	8-729-903-97	TRANSISTOR FMS1FE	
Q990	8-729-100-66	TRANSISTOR 2SC1623	
		〈 RESISTOR 〉	
R801	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R802	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R803	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R804	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R805	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R806	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R807	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R810	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R811	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R818	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R819	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R820	1-216-025-00	METAL CHIP 100 5% 1/10W	
R823	1-216-025-00	METAL CHIP 100 5% 1/10W	
R824	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R826	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R830	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R831	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R832	1-216-304-11	METAL CHIP 3.3 5% 1/10W	
R833	1-216-304-11	METAL CHIP 3.3 5% 1/10W	
R834	1-216-304-11	METAL CHIP 3.3 5% 1/10W	
R835	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R840	1-216-107-00	METAL CHIP 270K 5% 1/10W	
R841	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R842	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R843	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R844	1-216-107-00	METAL CHIP 270K 5% 1/10W	
R845	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R846	1-216-107-00	METAL CHIP 270K 5% 1/10W	
R847	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R848	1-216-107-00	METAL CHIP 270K 5% 1/10W	
R849	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R852	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R860	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R861	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R864	1-216-033-00	METAL CHIP 220 5% 1/10W	
R870	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R885	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R886	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R887	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R888	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R890	1-216-681-11	METAL CHIP 18K 0.5% 1/10W	
R891	1-216-681-11	METAL CHIP 18K 0.5% 1/10W	
R892	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R893	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R894	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R895	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R896	1-216-025-00	METAL CHIP 100 5% 1/10W	
R897	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R898	1-216-025-00	METAL CHIP 100 5% 1/10W	
R899	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R900	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R901	1-216-035-00	METAL CHIP 270 5% 1/10W	
R902	1-216-035-00	METAL CHIP 270 5% 1/10W	
R903	1-216-035-00	METAL CHIP 270 5% 1/10W	
R904	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R905	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R906	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R907	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R908	1-216-027-00	METAL CHIP 120 5% 1/10W	
R909	1-216-027-00	METAL CHIP 120 5% 1/10W	
R910	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R911	1-216-113-00	METAL CHIP 470K 5% 1/10W	

Ref. No.	Part No.	Description				Remark
R013	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R014	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R015	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R016	1-216-060-00	METAL GLAZE	3K	5%	1/10W	
R017	1-216-058-00	METAL GLAZE	2.4K	5%	1/10W	
R018	1-216-748-11	METAL CHIP	39K	5%	1/10W	
R019	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R020	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R021	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R022	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R023	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R024	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	
R031	1-216-117-00	METAL CHIP	680K	5%	1/10W	
R032	1-216-700-11	METAL CHIP	470K	1%	1/10W	
R033	1-216-022-00	METAL CHIP	75	5%	1/10W	
R034	1-216-039-00	METAL CHIP	390	5%	1/10W	
R035	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R036	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W	
R037	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W	
R039	1-215-401-11	METAL	150	1%	1/6W	
R040	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R041	1-216-295-00	METAL CHIP	0	5%	1/10W	
R042	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R043	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R051	1-216-043-00	METAL CHIP	560	5%	1/10W	
R052	1-216-078-00	METAL GLAZE	16K	5%	1/10W	
R053	1-216-072-00	METAL CHIP	9.1K	5%	1/10W	
R054	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R055	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R056	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R057	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R058	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R059	1-216-045-00	METAL CHIP	680	5%	1/10W	
R060	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R062	1-216-677-11	METAL CHIP	12K	0.5%	1/10W	
R063	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R064	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R065	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R066	1-216-060-00	METAL GLAZE	3K	5%	1/10W	
R067	1-216-058-00	METAL GLAZE	2.4K	5%	1/10W	
R068	1-216-748-11	METAL CHIP	39K	5%	1/10W	
R069	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R070	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R071	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R072	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R073	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R074	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	

(VARIABLE RESISTOR)

Ref. No.	Part No.	Description	Remark
RV001	1-230-524-11	RES, ADJ, METAL 22K	
RV002	1-230-521-11	RES, ADJ, METAL 2.2K	

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* A-7061-825-A PD-19 BOARD, COMPLETE

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(CAPACITOR)

Ref. No.	Part No.	Description				Remark
C851	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C852	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C853	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C854	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C856	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V	
C857	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C858	1-135-145-11	TANTALUM CHIP	0.47uF	10%	25V	
C859	1-135-180-21	TANTALUM CHIP	3.3uF	20%	6.3V	
C860	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V	
C861	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C862	1-163-085-00	CERAMIC CHIP	2PF		50V	
C863	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C864	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C867	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C868	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C869	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C870	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C871	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C872	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V	
C873	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V	
C874	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C875	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C876	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C877	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C878	1-135-156-21	TANTALUM CHIP	6.8uF	10%	6.3V	

Ref. No.	Part No.	Description	Remark
C011	1-130-469-00	MYLAR 680PF 5% 50V	
C012	1-130-482-00	MYLAR 0.0082uF 5% 50V	
C013	1-135-149-21	TANTALUM CHIP 2.2uF 20% 10V	
C014	1-135-156-21	TANTALUM CHIP 6.8uF 10% 6.3V	
C015	1-135-072-21	TANTALUM CHIP 0.22uF 10% 35V	
C016	1-126-153-11	ELECT 22uF 20% 6.3V	
C017	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C018	1-126-153-11	ELECT 22uF 20% 6.3V	
C019	1-126-153-11	ELECT 22uF 20% 6.3V	
C031	1-124-584-00	ELECT 100uF 20% 10V	
C032	1-124-584-00	ELECT 100uF 20% 10V	
C033	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C034	1-126-154-11	ELECT 47uF 20% 6.3V	
C035	1-126-154-11	ELECT 47uF 20% 6.3V	
C036	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C037	1-126-154-11	ELECT 47uF 20% 6.3V	
C038	1-135-156-21	TANTALUM CHIP 6.8uF 10% 6.3V	
C039	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C040	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C041	1-109-814-11	CAP, CHIP MICA 220PF	
C042	1-126-154-11	ELECT 47uF 20% 6.3V	
C043	1-126-153-11	ELECT 22uF 20% 6.3V	
C044	1-126-154-11	ELECT 47uF 20% 6.3V	
C051	1-163-012-00	CERAMIC CHIP 0.0018uF 10% 50V	
C052	1-124-584-00	ELECT 100uF 20% 10V	
C053	1-126-154-11	ELECT 47uF 20% 6.3V	
C054	1-126-154-11	ELECT 47uF 20% 6.3V	
C055	1-130-490-11	MYLAR 0.039uF 5% 50V	
C056	1-163-125-00	CERAMIC CHIP 220PF 5% 50V	
C057	1-130-479-00	MYLAR 0.0047uF 5% 50V	
C058	1-126-154-11	ELECT 47uF 20% 6.3V	
C059	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	
C060	1-126-154-11	ELECT 47uF 20% 6.3V	
C061	1-130-469-00	MYLAR 680PF 5% 50V	
C062	1-130-482-00	MYLAR 0.0082uF 5% 50V	
C063	1-135-149-21	TANTALUM CHIP 2.2uF 20% 10V	
C064	1-135-156-21	TANTALUM CHIP 6.8uF 10% 6.3V	
C065	1-135-072-21	TANTALUM CHIP 0.22uF 10% 35V	
C066	1-126-153-11	ELECT 22uF 20% 6.3V	
C067	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C068	1-126-153-11	ELECT 22uF 20% 6.3V	
C069	1-126-153-11	ELECT 22uF 20% 6.3V	
		(CONNECTOR)	
CN001	1-563-314-11	CONNECTOR, BOARD TO BOARD 20P	
		(DIODE)	
D031	8-719-104-34	DIODE 1S2836	
D032	8-719-104-34	DIODE 1S2836	
D033	8-719-104-34	DIODE 1S2836	
		(IC)	
IC001	8-752-009-90	IC CX20099	
IC002	8-759-981-92	IC NJM4558M	
IC003	8-759-981-92	IC NJM4558M	
IC004	8-752-322-57	IC CXD1077M	
IC005	8-759-908-15	IC TL431CLP	
		(COIL)	
L001	1-408-793-21	INDUCTOR CHIP 220uH	
		(TRANSISTOR)	
Q001	8-729-202-38	TRANSISTOR 2SC3326N	
Q002	8-729-202-38	TRANSISTOR 2SC3326N	
Q031	8-729-901-06	TRANSISTOR DTA144EK	
Q032	8-729-901-06	TRANSISTOR DTA144EK	
Q033	8-729-901-06	TRANSISTOR DTA144EK	
Q034	8-729-216-22	TRANSISTOR 2SA1162	
Q035	8-729-216-22	TRANSISTOR 2SA1162	
Q051	8-729-202-38	TRANSISTOR 2SC3326N	
Q052	8-729-202-38	TRANSISTOR 2SC3326N	
		(RESISTOR)	
R001	1-216-043-00	METAL CHIP 560 5% 1/10W	
R002	1-216-078-00	METAL GLAZE 16K 5% 1/10W	
R003	1-216-072-00	METAL CHIP 9.1K 5% 1/10W	
R004	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R005	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R006	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R007	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R008	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R009	1-216-045-00	METAL CHIP 680 5% 1/10W	
R010	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R012	1-216-677-11	METAL CHIP 12K 0.5% 1/10W	

PD-19 POWER BLOCK

Ref. No.	Part No.	Description	Remark
R886	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R887	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R888	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R889	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R890	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R891	1-216-295-00	METAL CHIP 0 5% 1/10W	
		(VARIABLE RESISTOR)	
RV851	1-230-869-11	RES, ADJ, METAL 4.7K	
RV854	1-230-868-11	RES, ADJ, METAL 2.2K	
		(CRYSTAL)	
X851	1-567-669-91	VIBRATOR, LITHIUM TANTALATE	
X852	1-567-346-11	OSCILLATOR, CERAMIC (5MHz)	

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⚠ 1-413-519-11 POWER BLOCK
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9-993-721-01 POWER BOARD

Ref. No.	Part No.	Description	Remark
		(CAPACITOR)	
C101	⚠ 9-993-698-01	FILM 0.1MF	125V
C102	⚠ 9-993-699-01	FILM 0.0022MF	125V
C103	⚠ 9-993-699-01	FILM 0.0022MF	125V
C104	9-993-700-01	FILM 220MF	200V
C105	1-136-187-21	FILM 0.047MF	250V
C106	9-993-701-01	FILM 0.001MF	1KV
C107	1-130-491-11	MYLAR 0.047MF	50V
C108	1-130-487-11	MYLAR 0.022MF	50V
C109	1-130-491-11	MYLAR 0.047MF	50V
C110	1-130-495-11	MYLAR 0.1MF	50V
C111	⚠ 9-993-699-01	MYLAR 0.0047MF	125V
C112	⚠ 9-993-699-01	MYLAR 0.0047MF	125V
C201	9-993-702-01	ELECT 2200MF	25V
C202	1-124-126-11	ELECT 47MF	25V
C203	1-123-875-11	ELECT 10MF	50V
C204	9-993-705-01	ELECT 1000MF	16V
C205	9-993-705-01	ELECT 1000MF	16V
C206	9-993-703-01	ELECT 3900MF	10V
C207	9-993-703-01	ELECT 3900MF	10V
C208	1-123-875-11	ELECT 10MF	50V
C209	9-993-704-01	ELECT 1500MF	10V
C210	9-993-704-01	ELECT 1500MF	10V
C211	⚠ 9-993-706-01	ELECT 1MF	50V
C212	⚠ 9-993-704-01	ELECT 1500MF	10V
C213	1-124-787-11	ELECT 47MF	35V
C214	1-123-875-11	ELECT 10MF	50V
C215	1-123-875-11	ELECT 10MF	50V
C216	1-130-483-11	MYLAR 0.01MF	50V
C217	1-130-483-11	MYLAR 0.01MF	50V
C218	9-993-704-01	ELECT 1500MF	10V
C219	1-136-283-21	FILM 0.1MF	63V
C220	9-993-206-01	ELECT 1MF	50V
		(DIODE)	
D101	⚠ 8-719-500-04	DIODE S1WB40	
D102	9-993-709-01	DIODE SM-1FX08	
D103	9-993-710-01	DIODE 1SS144	
D104	9-993-711-01	DIODE DS442	
D105	9-993-711-01	DIODE DS442	
D201	8-719-907-40	DIODE ERB43-02	
D202	9-993-712-01	DIODE F10P04Q	
D203	9-993-712-01	DIODE F10P04Q	
D204	8-719-200-29	DIODE 11DQ04	
D205	8-719-907-40	DIODE ERB43-02	
D206	8-719-200-82	DIODE 11ES2	
D207	8-719-200-82	DIODE 11ES2	
D208	8-719-200-82	DIODE 11ES2	
		(FUSE)	
F101	⚠ 1-532-734-11	FUSE, GLASS TUBE (2A 125V)	
		(IC)	
IC201	⚠ 8-759-605-43	IC M5231TL	
IC202	⚠ 8-759-605-43	IC M5231TL	
IC203	9-993-714-01	IC L5431	
IC204	9-993-707-01	IC 97L09A	
		(COIL)	
L101	⚠ 9-993-715-01	COIL, CHOKE SU16V-10060	
L201	9-993-716-01	COIL, CHOKE 5uH	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description				Remark
C879	1-163-035-00	CERAMIC CHIP	0.047uF			50V
C880	1-135-156-21	TANTALUM CHIP	6.8uF	10%		6.3V
C881	1-163-035-00	CERAMIC CHIP	0.047uF			50V
C882	1-163-035-00	CERAMIC CHIP	0.047uF			50V
C884	1-163-035-00	CERAMIC CHIP	0.047uF			50V
C885	1-163-105-00	CERAMIC CHIP	33PF	5%		50V
C886	1-163-105-00	CERAMIC CHIP	33PF	5%		50V
C887	1-163-035-00	CERAMIC CHIP	0.047uF			50V
C888	1-163-035-00	CERAMIC CHIP	0.047uF			50V
C889	1-135-156-21	TANTALUM CHIP	6.8uF	10%		6.3V
		(CONNECTOR)				
CN851	* 1-565-107-21	PIN, CONNECTOR (PC BOARD) 35P				
CN852	* 1-565-107-21	PIN, CONNECTOR (PC BOARD) 35P				
CN853	1-506-777-11	CONNECTOR, BOARD TO BOARD 20P				
		(DIODE)				
D851	8-719-104-34	DIODE 1S2836				
D852	8-719-400-18	DIODE MA152WK				
D853	8-719-400-18	DIODE MA152WK				
		(IC)				
IC851	8-752-324-45	IC CXD1066Q-Z				
IC852	8-759-929-17	IC CXD1051M				
IC853	8-752-010-30	IC CX20103				
IC854	8-752-010-20	IC CX20102				
IC855	8-752-331-00	IC CXK5864BM-12L				
IC856	8-759-948-61	IC CX23011-C				
IC857	8-759-911-19	IC CX23012				
IC858	8-759-972-12	IC CF77305FT				
IC859	8-752-809-68	IC CXP5024H-079Q				
IC860	8-759-972-13	IC CF77309FR				
		(COIL)				
L851	1-410-393-11	INDUCTOR CHIP 100uH				
L852	1-410-393-11	INDUCTOR CHIP 100uH				
L853	1-410-393-11	INDUCTOR CHIP 100uH				
L855	1-410-393-11	INDUCTOR CHIP 100uH				
L856	1-410-393-11	INDUCTOR CHIP 100uH				
L857	1-410-393-11	INDUCTOR CHIP 100uH				
L858	1-410-393-11	INDUCTOR CHIP 100uH				
L859	1-410-393-11	INDUCTOR CHIP 100uH				
L860	1-410-393-11	INDUCTOR CHIP 100uH				
L861	1-410-393-11	INDUCTOR CHIP 100uH				
L862	1-410-393-11	INDUCTOR CHIP 100uH				
		(TRANSISTOR)				
Q851	8-729-102-07	TRANSISTOR 2SC2223				
Q852	8-729-122-63	TRANSISTOR 2SA1226				
Q853	8-729-102-06	TRANSISTOR 2SC2223				
Q853	8-729-102-07	TRANSISTOR 2SC2223				
		(RESISTOR)				
R851	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R852	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R853	1-216-033-00	METAL CHIP	220	5%	1/10W	
R854	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R855	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R856	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R857	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R858	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R859	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R860	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R861	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R862	1-216-025-00	METAL CHIP	100	5%	1/10W	
R863	1-216-041-00	METAL CHIP	470	5%	1/10W	
R864	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R866	1-216-041-00	METAL CHIP	470	5%	1/10W	
R867	1-216-295-00	METAL CHIP	0	5%	1/10W	
R868	1-216-295-00	METAL CHIP	0	5%	1/10W	
R869	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R870	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R871	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R872	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R873	1-216-041-00	METAL CHIP	470	5%	1/10W	
R874	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R875	1-216-295-00	METAL CHIP	0	5%	1/10W	
R876	1-216-045-00	METAL CHIP	680	5%	1/10W	
R879	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R880	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R881	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R882	1-216-043-00	METAL CHIP	560	5%	1/10W	
R883	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R884	1-216-073-00	METAL CHIP	10K	5%	1/10W	

RP-73 (LP)

Ref. No.	Part No.	Description				Remark
C025	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C027	1-135-091-00	TANTALUM CHIP	1uF	20%	16V	
C028	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C029	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C030	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C031	1-164-218-11	CERAMIC CHIP	180PF	0.25PF	50V	
C032	1-162-918-11	CERAMIC CHIP	18PF	5%	50V	
C033	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C034	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V	
C035	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C036	1-164-218-11	CERAMIC CHIP	180PF	0.25PF	50V	
C037	1-162-918-11	CERAMIC CHIP	18PF	5%	50V	
C038	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C039	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V	
C040	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V	
C041	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V	
C042	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V	
C043	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V	
C044	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C045	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C046	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
		⟨ DIODE ⟩				
D001	8-719-801-41	DIODE 1SS196				
D002	8-719-801-41	DIODE 1SS196				
		⟨ IC ⟩				
IC001	8-752-033-00	IC CXA1234AR				
		⟨ COIL ⟩				
L001	1-410-385-11	INDUCTOR CHIP	22uH			
L002	1-410-656-11	INDUCTOR CHIP	150uH			
L004	1-410-393-11	INDUCTOR CHIP	100uH			
L005	1-410-381-11	INDUCTOR CHIP	10uH			
L007	1-410-393-11	INDUCTOR CHIP	100uH			
L008	1-410-384-31	INDUCTOR CHIP	18uH			
L009	1-410-384-31	INDUCTOR CHIP	18uH			
L031	1-408-777-00	INDUCTOR CHIP	10uH			
L041	1-408-793-21	INDUCTOR CHIP	220uH			
L042	1-408-777-00	INDUCTOR CHIP	10uH			
L051	1-408-785-21	INDUCTOR CHIP	47uH			

Ref. No.	Part No.	Description				Remark
		⟨ TRANSISTOR ⟩				
Q002	8-729-102-07	TRANSISTOR 2SC2223-F13				
Q003	8-729-102-07	TRANSISTOR 2SC2223-F13				
		⟨ RESISTOR ⟩				
R001	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R002	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R003	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R004	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R005	1-216-824-11	METAL CHIP	1.8K	5%	1/16W	
R006	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R007	1-216-834-11	METAL CHIP	12K	5%	1/16W	
R008	1-216-835-11	METAL CHIP	15K	5%	1/16W	
R009	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R010	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R011	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R012	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R013	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R014	1-216-824-11	METAL CHIP	1.8K	5%	1/16W	
R015	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R016	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R017	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R018	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R019	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R020	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R021	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R026	1-216-837-11	METAL CHIP	22K	5%	1/16W	
R027	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R028	1-216-797-11	METAL CHIP	10	5%	1/16W	
R029	1-216-812-11	METAL CHIP	180	5%	1/16W	
R030	1-216-837-11	METAL CHIP	22K	5%	1/16W	
R031	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R032	1-216-797-11	METAL CHIP	10	5%	1/16W	
R033	1-216-812-11	METAL CHIP	180	5%	1/16W	
		⟨ VARIABLE RESISTOR ⟩				
RV001	1-230-871-11	RES, ADJ, METAL	22K			
RV002	1-230-871-11	RES, ADJ, METAL	22K			
RV003	1-230-869-11	RES, ADJ, METAL	4.7K			
RV004	1-230-869-11	RES, ADJ, METAL	4.7K			

Ref. No.		Part No.	Description			Remark
L202		9-993-716-01	COIL, CHOKE 5uH			
L203		9-993-716-01	COIL, CHOKE 5uH			
L204		9-993-716-01	COIL, CHOKE 5uH			
			(PHOTO COUPLER)			
PC101	⚠	8-719-902-56	PHOTO COUPLER PC-817			
PC102	⚠	8-719-902-56	PHOTO COUPLER PC-817			
			(TRANSISTOR)			
Q101	⚠	8-729-303-04	TRANSISTOR 2SC3832			
Q102	⚠	8-729-906-02	TRANSISTOR 2SC2060Q			
Q201		8-729-281-53	TRANSISTOR 2SC1815			
Q202		9-993-708-01	TRANSISTOR 2SC4064			
Q203		8-729-281-53	TRANSISTOR 2SC1815			
Q204		9-993-708-01	TRANSISTOR 2SC4064			
Q205		8-729-281-53	TRANSISTOR 2SC1815			
Q207		8-729-202-45	TRANSISTOR 2SA1020			
			(RESISTOR)			
R102	⚠	9-993-696-01	CARBON	0.82	2W	
R103	⚠	9-993-697-01	METAL OXIDE	150K	1/2W	
R104	⚠	1-206-696-61	METAL OXIDE	22K	2W	
R105	⚠	1-206-479-61	METAL OXIDE	47	2W	
R106		9-993-688-01	CARBON	2200	1/5W	
R107		9-993-686-01	CARBON	1K	1/5W	
R108	⚠	1-206-479-61	METAL OXIDE	47	2W	
R109		9-993-684-01	CARBON	470	1/5W	
R110		9-993-683-01	CARBON	390	1/5W	
R201		9-993-692-01	CARBON	10K	1/5W	
R202		9-993-692-01	CARBON	10K	1/5W	
R203		9-993-694-01	CARBON	47K	1/5W	
R204		9-993-694-01	CARBON	47K	1/5W	
R205		9-993-693-01	CARBON	12K	1/5W	
R206		9-993-693-01	CARBON	12K	1/5W	
R207		9-993-690-01	CARBON	3300	1/5W	
R208		9-993-694-01	CARBON	47K	1/5W	
R209		9-993-694-01	CARBON	47K	1/5W	
R210		9-993-686-01	CARBON	1K	1/5W	
R211		9-993-691-01	CARBON	4700	1/5W	
R212		9-993-690-01	CARBON	3300	1/5W	
R213		9-993-685-01	CARBON	680	1/5W	
R214		9-993-689-01	CARBON	2700	1/5W	

Ref. No.		Part No.	Description			Remark
R215		9-993-688-01	CARBON	2200	1/5W	
R216		9-993-681-01	CARBON	47	1/5W	
R217		9-993-694-01	CARBON	47K	1/5W	
R218		9-993-694-01	CARBON	47K	1/5W	
R221		9-993-682-01	CARBON	330	1/5W	
R222		9-993-687-01	CARBON	1500	1/5W	
R101		9-993-695-01	THERMISTOR 100-9			
			(VARIABLE RESISTOR)			
RV201		9-993-718-01	RES, ADJ 5K			
RV202		9-993-719-01	RES, ADJ 2K			
RV203		9-993-719-01	RES, ADJ 2K			
			(TRANSFORMER)			
T101	⚠	9-993-717-01	TRANSFOMER, DRIVE			

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A-7061-827-A RP-73 (LP) BOARD, COMPLETE

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(CAPACITOR)

Ref. No.	Part No.	Description				Remark
C001	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C002	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C003	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C005	1-164-330-21	CERAMIC CHIP	0.22uF	10%	16V	
C006	1-135-161-21	TANTALUM CHIP	22uF	10%	6.3V	
C007	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V	
C008	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C009	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C010	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V	
C011	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C012	1-164-330-21	CERAMIC CHIP	0.22uF	10%	16V	
C013	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C015	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C016	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C017	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C020	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C021	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C022	1-135-091-00	TANTALUM CHIP	1uF	20%	16V	
C023	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V	
C024	1-164-232-11	CERAMIC CHIP	0.01uF		50V	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

RP-73 (SP) RS-31

Ref. No.	Part No.	Description	Remark
R011	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R012	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R013	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R014	1-216-824-11	METAL CHIP 1.8K 5% 1/16W	
R015	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R016	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R017	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R018	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R019	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R020	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R021	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R026	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R027	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R028	1-216-797-11	METAL CHIP 10 5% 1/16W	
R029	1-216-812-11	METAL CHIP 180 5% 1/16W	
R030	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R031	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R032	1-216-797-11	METAL CHIP 10 5% 1/16W	
R033	1-216-812-11	METAL CHIP 180 5% 1/16W	

(VARIABLE RESISTOR)

Ref. No.	Part No.	Description	Remark
RV001	1-230-871-11	RES, ADJ, METAL 22K	
RV002	1-230-871-11	RES, ADJ, METAL 22K	
RV003	1-230-869-11	RES, ADJ, METAL 4.7K	
RV004	1-230-869-11	RES, ADJ, METAL 4.7K	

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* A-7061-818-A RS-31 BOARD, COMPLETE

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Ref. No.	Part No.	Description	Remark
	* 1-559-762-11	WIRE, FLAT TYPE 22P	
	3-712-410-01	HOLDER, RS	
	3-722-175-01	SPACER, MD	

(CONNECTOR)

Ref. No.	Part No.	Description	Remark
CN301	1-506-481-11	CONNECTOR 2P, MALE	
CN302	1-506-481-11	CONNECTOR 2P, MALE	
CN304	* 1-563-494-11	CONNECTOR, F.P.C 6P	
CN305	* 1-565-211-11	CONNECTOR, FPC (ZIF) 22P	

(DIODE)

Ref. No.	Part No.	Description	Remark
D320	8-719-800-76	DIODE 1SS226	
D321	8-719-800-76	DIODE 1SS226	

(IC)

Ref. No.	Part No.	Description	Remark
IC301	8-759-908-81	IC MB3763PF	
IC302	8-759-908-81	IC MB3763PF	

(PHOTO INTERUPTER)

Ref. No.	Part No.	Description	Remark
PH301	8-719-939-11	PHOTO INTERRUPTER GP-2S09-B	
PH302	8-719-939-11	PHOTO INTERRUPTER GP-2S09-B	
PH303	8-719-939-11	PHOTO INTERRUPTER GP-2S09-B	

(LINK IC)

Ref. No.	Part No.	Description	Remark
PS301 ⚠	1-532-727-11	LINK, IC (0.25A 125V)	

(TRANSISTOR)

Ref. No.	Part No.	Description	Remark
Q301	8-729-805-25	TRANSISTOR 2SB1121	
Q302	8-729-216-22	TRANSISTOR 2SA1162	
Q303	8-729-216-22	TRANSISTOR 2SA1162	
Q304	8-729-216-22	TRANSISTOR 2SA1162	
Q305	8-729-901-01	TRANSISTOR DTC144EK	
Q306	8-729-901-01	TRANSISTOR DTC144EK	
Q307	8-729-901-01	TRANSISTOR DTC144EK	

(RESISTOR)

Ref. No.	Part No.	Description	Remark
R302	1-216-174-00	METAL GLAZE 100 5% 1/8W	
R303	1-216-186-00	METAL GLAZE 330 5% 1/8W	
R304	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R305	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R306	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R307	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R308	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R309	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R320	1-216-041-00	METAL CHIP 470 5% 1/10W	
R321	1-216-041-00	METAL CHIP 470 5% 1/10W	
R322	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R323	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R324	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R325	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R326	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R327	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R328	1-216-073-00	METAL CHIP 10K 5% 1/10W	

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Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description				Remark
**						
	A-7061-822-A	RP-73 (SP) BOARD, COMPLETE				
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		(CAPACITOR)				
C001	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C002	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C003	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C005	1-164-330-21	CERAMIC CHIP	0.22uF	10%	16V	
C006	1-135-161-21	TANTALUM CHIP	22uF	10%	6.3V	
C007	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V	
C008	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C009	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C010	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V	
C011	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C012	1-164-330-21	CERAMIC CHIP	0.22uF	10%	16V	
C013	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C015	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C016	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C017	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C020	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C021	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C022	1-135-091-00	TANTALUM CHIP	1uF	20%	16V	
C023	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V	
C024	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C025	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C027	1-135-091-00	TANTALUM CHIP	1uF	20%	16V	
C028	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C029	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C030	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C031	1-164-218-11	CERAMIC CHIP	180PF	0.25PF	50V	
C032	1-162-918-11	CERAMIC CHIP	18PF	5%	50V	
C033	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C034	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V	
C035	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C036	1-164-218-11	CERAMIC CHIP	180PF	0.25PF	50V	
C037	1-162-918-11	CERAMIC CHIP	18PF	5%	50V	
C038	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C039	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V	
C040	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V	
C041	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V	
Ref. No.	Part No.	Description				Remark
C042	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V	
C043	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V	
C044	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C045	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C046	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
		(DIODE)				
D001	8-719-801-41	DIODE 1SS196				
D002	8-719-801-41	DIODE 1SS196				
		(IC)				
IC001	8-752-033-00	IC CXA1234AR				
		(COIL)				
L001	1-410-385-11	INDUCTOR CHIP 22uH				
L002	1-410-656-11	INDUCTOR CHIP 150uH				
L004	1-410-393-11	INDUCTOR CHIP 100uH				
L005	1-410-381-11	INDUCTOR CHIP 10uH				
L007	1-410-393-11	INDUCTOR CHIP 100uH				
L008	1-410-384-31	INDUCTOR CHIP 18uH				
L009	1-410-384-31	INDUCTOR CHIP 18uH				
L031	1-408-777-00	INDUCTOR CHIP 10uH				
L041	1-408-793-21	INDUCTOR CHIP 220uH				
L042	1-408-777-00	INDUCTOR CHIP 10uH				
L051	1-408-785-21	INDUCTOR CHIP 47uH				
		(TRANSISTOR)				
Q002	8-729-102-07	TRANSISTOR 2SC2223-F13				
Q003	8-729-102-07	TRANSISTOR 2SC2223-F13				
		(RESISTOR)				
R001	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R002	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R003	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R004	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R005	1-216-824-11	METAL CHIP	1.8K	5%	1/16W	
R006	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R007	1-216-836-11	METAL CHIP	18K	5%	1/16W	
R008	1-216-837-11	METAL CHIP	22K	5%	1/16W	
R009	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R010	1-216-089-00	METAL CHIP	47K	5%	1/10W	

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Ref. No.	Part No.	Description			Remark
C211	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C212	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C213	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C214	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C215	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C216	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C217	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C218	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C219	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C220	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C221	1-124-256-00	ELECT	1.5uF	20%	50V
C223	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C224	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C226	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C301	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C302	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C303	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C304	1-124-584-00	ELECT	100uF	20%	10V
C305	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C306	1-124-584-00	ELECT	100uF	20%	10V
C307	1-126-163-11	ELECT	4.7uF	20%	50V
C308	1-124-257-00	ELECT	2.2uF	20%	50V
C309	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C310	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C311	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C401	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C402	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C403	1-126-163-11	ELECT	4.7uF	20%	50V
C404	1-126-163-11	ELECT	4.7uF	20%	50V
C405	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C406	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C407	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C408	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C409	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C410	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C411	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C412	1-126-157-11	ELECT	10uF	20%	16V
C502	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C503	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C504	1-124-257-00	ELECT	2.2uF	20%	50V
C505	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C506	1-164-232-11	CERAMIC CHIP	0.01uF		50V

Ref. No.	Part No.	Description			Remark
C508	1-124-589-11	ELECT	47uF	20%	16V
C601	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C602	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C603	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C604	1-124-589-11	ELECT	47uF	20%	16V
C605	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C606	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C607	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C608	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C609	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C610	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C611	1-126-157-11	ELECT	10uF	20%	16V
C612	1-126-157-11	ELECT	10uF	20%	16V
C613	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C614	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C615	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C616	1-164-633-11	CERAMIC CHIP	0.1uF	10%	25V
C617	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C620	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C621	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C622	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C623	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C624	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C625	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C626	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C627	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C628	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C629	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C630	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C631	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C632	1-126-157-11	ELECT	10uF	20%	16V
		〈 CONNECTOR 〉			
CN001	* 1-566-641-11	CONNECTOR, HINGE (TAB) 18P			
CN002	* 1-566-941-11	CONNECTOR, HINGE (TAB) 30P			
CN003	* 1-566-641-11	CONNECTOR, HINGE (TAB) 18P			
CN004	1-566-943-11	CONNECTOR, BOARD TO BOARD 18P			
CN004	1-566-945-11	CONNECTOR, BOARD TO BOARD 18P			
CN005	1-566-944-11	CONNECTOR, BOARD TO BOARD 22P			
CN005	1-566-946-11	CONNECTOR, BOARD TO BOARD 22P			
CN006	1-566-945-11	CONNECTOR, BOARD TO BOARD 18P			
CN007	1-566-945-11	CONNECTOR, BOARD TO BOARD 18P			

Ref. No.	Part No.	Description				Remark
R329	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R330	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R331	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R332	1-216-073-00	METAL CHIP	10K	5%	1/10W	

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* A-7061-823-A SE-10 BOARD, COMPLETE

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3-831-441-XX CUSHION (5)

(CAPACITOR)

Ref. No.	Part No.	Description				Remark
C006	1-126-157-11	ELECT	10uF	20%	16V	
C008	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
C009	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
C010	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C011	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C012	1-126-163-11	ELECT	4.7uF	20%	50V	
C013	1-126-157-11	ELECT	10uF	20%	16V	
C014	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C015	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C016	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V	
C017	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C018	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C019	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C020	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C021	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C022	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C024	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C025	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C026	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C027	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C028	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C031	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C032	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C033	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C034	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C035	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C036	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C037	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C101	1-126-157-11	ELECT	10uF	20%	16V	
C102	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C103	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C104	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C105	1-163-263-11	CERAMIC CHIP	330PF	5%	50V	
C106	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C107	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C108	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C109	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	
C110	1-126-320-11	ELECT, NONPOLAR	10uF	20%	16V	
C111	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C112	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C113	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C114	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C115	1-126-157-11	ELECT	10uF	20%	16V	
C116	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V	
C117	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C119	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C120	1-163-209-00	CERAMIC CHIP	0.0015uF	5%	50V	
C121	1-163-209-00	CERAMIC CHIP	0.0015uF	5%	50V	
C122	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C127	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C128	1-124-767-00	ELECT	2.2uF	20%	50V	
C129	1-126-163-11	ELECT	4.7uF	20%	50V	
C130	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C131	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C132	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C133	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C134	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V	
C135	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C136	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C137	1-124-768-11	ELECT	4.7uF	20%	50V	
C201	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C202	1-163-123-00	CERAMIC CHIP	180PF	5%	50V	
C203	1-163-137-00	CERAMIC CHIP	680PF	5%	50V	
C204	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C205	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C206	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C207	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C208	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C209	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C210	1-124-234-00	ELECT	22uF	20%	16V	

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Ref. No.	Part No.	Description	Remark
L101	1-408-777-00	INDUCTOR CHIP 10uH	
L401	1-408-777-00	INDUCTOR CHIP 10uH	
L402	1-408-777-00	INDUCTOR CHIP 10uH	
L403	1-408-783-00	INDUCTOR CHIP 33uH	
L404	1-408-777-00	INDUCTOR CHIP 10uH	
L501	1-408-777-00	INDUCTOR CHIP 10uH	
L601	1-408-777-00	INDUCTOR CHIP 10uH	
L602	1-408-777-00	INDUCTOR CHIP 10uH	
		⟨ LINK IC ⟩	
PS601 ⚠	1-532-679-00	LINK, IC	
		⟨ TRANSISTOR ⟩	
Q002	8-729-901-01	TRANSISTOR DTC144EK	
Q003	8-729-901-06	TRANSISTOR DTA144EK	
Q004	8-729-901-01	TRANSISTOR DTC144EK	
Q005	8-729-901-01	TRANSISTOR DTC144EK	
Q006	8-729-901-01	TRANSISTOR DTC144EK	
Q007	8-729-901-01	TRANSISTOR DTC144EK	
Q008	8-729-901-01	TRANSISTOR DTC144EK	
Q009	8-729-901-01	TRANSISTOR DTC144EK	
Q010	8-729-901-06	TRANSISTOR DTA144EK	
Q011	8-729-901-06	TRANSISTOR DTA144EK	
Q014	8-729-901-01	TRANSISTOR DTC144EK	
Q015	8-729-901-01	TRANSISTOR DTC144EK	
Q018	8-729-901-01	TRANSISTOR DTC144EK	
Q101	8-729-901-06	TRANSISTOR DTA144EK	
Q102	8-729-901-06	TRANSISTOR DTA144EK	
Q103	8-729-901-06	TRANSISTOR DTA144EK	
Q104	8-729-901-01	TRANSISTOR DTC144EK	
Q106	8-729-100-66	TRANSISTOR 2SC1623	
Q107	8-729-901-06	TRANSISTOR DTA144EK	
Q108	8-729-901-06	TRANSISTOR DTA144EK	
Q109	8-729-901-06	TRANSISTOR DTA144EK	
Q110	8-729-901-06	TRANSISTOR DTA144EK	
Q111	8-729-100-66	TRANSISTOR 2SC1623	
Q112	8-729-901-01	TRANSISTOR DTC144EK	
Q113	8-729-901-01	TRANSISTOR DTC144EK	
Q114	8-729-901-01	TRANSISTOR DTC144EK	
Q115	8-729-901-01	TRANSISTOR DTC144EK	
Q116	8-729-901-06	TRANSISTOR DTA144EK	
Q117	8-729-901-06	TRANSISTOR DTA144EK	
Q202	8-729-216-22	TRANSISTOR 2SA1162	
Q205	8-729-901-01	TRANSISTOR DTC144EK	
Q209	8-729-901-06	TRANSISTOR DTA144EK	
Q210	8-729-901-01	TRANSISTOR DTC144EK	
Q301	8-729-901-06	TRANSISTOR DTA144EK	
Q302	8-729-901-01	TRANSISTOR DTC144EK	
Q303	8-729-901-01	TRANSISTOR DTC144EK	
Q304	8-729-901-01	TRANSISTOR DTC144EK	
Q305	8-729-901-01	TRANSISTOR DTC144EK	
Q306	8-729-901-06	TRANSISTOR DTA144EK	
Q307	8-729-901-01	TRANSISTOR DTC144EK	
Q308	8-729-901-01	TRANSISTOR DTC144EK	
Q309	8-729-901-01	TRANSISTOR DTC144EK	
Q401	8-729-216-22	TRANSISTOR 2SA1162	
Q402	8-729-100-66	TRANSISTOR 2SC1623	
Q403	8-729-100-66	TRANSISTOR 2SC1623	
Q404	8-729-216-22	TRANSISTOR 2SA1162	
Q405	8-729-100-66	TRANSISTOR 2SC1623	
Q406	8-729-216-22	TRANSISTOR 2SA1162	
Q407	8-729-100-66	TRANSISTOR 2SC1623	
Q408	8-729-216-22	TRANSISTOR 2SA1162	
Q409	8-729-100-66	TRANSISTOR 2SC1623	
Q410	8-729-100-66	TRANSISTOR 2SC1623	
Q411	8-729-100-66	TRANSISTOR 2SC1623	
Q502	8-729-100-66	TRANSISTOR 2SC1623	
Q503	8-729-901-06	TRANSISTOR DTA144EK	
Q504	8-729-100-66	TRANSISTOR 2SC1623	
Q505	8-729-100-66	TRANSISTOR 2SC1623	
Q506	8-729-100-66	TRANSISTOR 2SC1623	
Q507	8-729-901-06	TRANSISTOR DTA144EK	
Q508	8-729-901-06	TRANSISTOR DTA144EK	
Q601	8-729-901-06	TRANSISTOR DTA144EK	
Q604	8-729-805-25	TRANSISTOR 2SB1121	
Q605	8-729-100-66	TRANSISTOR 2SC1623	
Q606	8-729-901-06	TRANSISTOR DTA144EK	
Q701	8-729-901-06	TRANSISTOR DTA144EK	
Q702	8-729-901-06	TRANSISTOR DTA144EK	
Q703	8-729-901-01	TRANSISTOR DTC144EK	
Q704	8-729-216-22	TRANSISTOR 2SA1162	
Q705	8-729-216-22	TRANSISTOR 2SA1162	
Q706	8-729-100-66	TRANSISTOR 2SC1623	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
CN011	1-565-212-11	CONNECTOR, FPC (ZIF) 26P	
CN012	* 1-565-211-11	CONNECTOR, FPC (ZIF) 22P	
CN901	1-506-473-11	CONNECTOR 8P, MALE	
CN902	1-506-477-11	CONNECTOR 12P, MALE	
CN903	1-506-478-11	CONNECTOR 13P, MALE	
CN904	1-506-470-11	CONNECTOR 5P, MALE	
CN905	1-506-474-11	CONNECTOR 9P, MALE	
CN906	1-506-472-11	CONNECTOR 7P, MALE	
CN907	1-506-477-11	CONNECTOR 12P, MALE	
		(DIODE)	
D003	8-719-400-18	DIODE MA152WK	
D004	8-719-400-18	DIODE MA152WK	
D005	8-719-400-18	DIODE MA152WK	
D006	8-719-104-34	DIODE 1S2836	
D007	8-719-400-18	DIODE MA152WK	
D008	8-719-400-18	DIODE MA152WK	
D009	8-719-400-18	DIODE MA152WK	
D012	8-719-400-18	DIODE MA152WK	
D013	8-719-400-18	DIODE MA152WK	
D015	8-719-104-34	DIODE 1S2836	
D016	8-719-104-34	DIODE 1S2836	
D018	8-719-400-18	DIODE MA152WK	
D101	8-719-800-76	DIODE 1SS226	
D102	8-719-800-76	DIODE 1SS226	
D104	8-719-104-34	DIODE 1S2836	
D105	8-719-400-18	DIODE MA152WK	
D106	8-719-400-18	DIODE MA152WK	
D107	8-719-104-34	DIODE 1S2836	
D108	8-719-400-18	DIODE MA152WK	
D109	8-719-400-18	DIODE MA152WK	
D110	8-719-104-34	DIODE 1S2836	
D111	8-719-400-18	DIODE MA152WK	
D112	8-719-104-34	DIODE 1S2836	
D115	8-719-104-34	DIODE 1S2836	
D201	8-719-400-18	DIODE MA152WK	
D203	8-719-105-82	DIODE RD5.1M	
D203	8-719-105-83	DIODE RD5.1M	
D301	8-719-400-18	DIODE MA152WK	
D302	8-719-400-18	DIODE MA152WK	
D401	8-719-800-76	DIODE 1SS226	

Ref. No.	Part No.	Description	Remark
D701	8-719-400-18	DIODE MA152WK	
		(FILTER)	
FL201	1-235-611-11	BPF	
FL202	1-235-612-11	BPF	
		(IC)	
IC001	8-752-816-72	IC CXP80116-692Q	
IC002	8-752-817-63	IC CXP5048H-243Q	
IC003	8-752-815-13	IC CXP5048H-222Q	
IC004	8-759-144-21	IC uPD75106G-573	
IC007	8-759-008-67	IC TC4066BF	
IC008	8-759-937-56	IC S-8054ALB-LM	
IC009	8-759-209-15	IC TC4SU69F	
IC101	8-752-003-50	IC CX20035	
IC102	8-759-803-47	IC LA5005M	
IC103	8-759-925-66	IC BA6303F	
IC104	8-759-981-75	IC RC3403AM	
IC105	8-759-300-71	IC TC4053BF	
IC106	8-759-971-25	IC MB674169U	
IC107	8-759-100-94	IC uPC358G2	
IC108	8-759-008-67	IC TC4066BF	
IC201	8-759-928-56	IC CXA1042M	
IC202	8-759-150-05	IC uPC324G2	
IC203	8-759-300-71	IC TC4053BF	
IC204	8-759-927-46	IC SN74HC00ANS	
IC206	8-759-035-93	IC TC7S32F	
IC301	8-759-100-94	IC uPC358G2	
IC302	8-759-300-71	IC TC4053BF	
IC303	8-759-300-71	IC TC4053BF	
IC304	8-759-200-90	IC TC4538BF	
IC305	8-759-927-46	IC SN74HC00ANS	
IC601	8-759-927-94	IC BU3707F	
IC602	8-759-927-52	IC BA7036LS	
IC603	8-759-100-93	IC uPC393G2	
IC604	8-759-150-05	IC uPC324G2	
IC651	8-759-711-79	IC NJM2233BM	
		(COIL)	
L001	1-408-777-00	INDUCTOR CHIP 10uH	
L002	1-408-777-00	INDUCTOR CHIP 10uH	
L003	1-408-777-00	INDUCTOR CHIP 10uH	

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Ref. No.	Part No.	Description				Remark
R081	1-216-080-00	METAL CHIP	20K	5%	1/10W	
R082	1-216-080-00	METAL CHIP	20K	5%	1/10W	
R083	1-216-080-00	METAL CHIP	20K	5%	1/10W	
R084	1-216-080-00	METAL CHIP	20K	5%	1/10W	
R085	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R086	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R087	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R088	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R089	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R090	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R091	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R092	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R093	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R094	1-216-683-11	METAL CHIP	22K	0.5%	1/10W	
R095	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R096	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R097	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R098	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R099	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R101	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R102	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R103	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R104	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R105	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R106	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R107	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R108	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R109	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R110	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R111	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R112	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R113	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R114	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R115	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R116	1-216-099-00	METAL CHIP	120K	5%	1/10W	
R117	1-216-117-00	METAL CHIP	680K	5%	1/10W	
R118	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R119	1-216-117-00	METAL CHIP	680K	5%	1/10W	
R120	1-216-295-00	METAL CHIP	0	5%	1/10W	
R122	1-216-101-00	METAL CHIP	150K	5%	1/10W	
R123	1-216-085-00	METAL CHIP	33K	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R124	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R125	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R126	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R127	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R128	1-216-093-00	METAL CHIP	68K	5%	1/10W	
R129	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R130	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R131	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R132	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R133	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R135	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R137	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W	
R138	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W	
R139	1-216-295-00	METAL CHIP	0	5%	1/10W	
R140	1-216-295-00	METAL CHIP	0	5%	1/10W	
R141	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R142	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R143	1-216-687-11	METAL CHIP	33K	0.5%	1/10W	
R148	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R149	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R150	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R151	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R152	1-216-082-00	METAL GLAZE	24K	5%	1/10W	
R153	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R154	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R155	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R156	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R157	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R158	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R159	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R160	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R161	1-216-103-00	METAL CHIP	180K	5%	1/10W	
R162	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R163	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R164	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R165	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R167	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R168	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R169	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R170	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R171	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R172	1-216-089-00	METAL CHIP	47K	5%	1/10W	

Ref. No.	Part No.	Description	Remark
Q707	8-729-100-66	TRANSISTOR 2SC1623	
Q708	8-729-901-06	TRANSISTOR DTA144EK	
Q709	8-729-901-06	TRANSISTOR DTA144EK	
Q710	8-729-901-06	TRANSISTOR DTA144EK	
Q711	8-729-901-06	TRANSISTOR DTA144EK	
Q712	8-729-901-06	TRANSISTOR DTA144EK	
Q713	8-729-901-01	TRANSISTOR DTC144EK	
Q714	8-729-901-01	TRANSISTOR DTC144EK	
		(RESISTOR)	
R001	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R002	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R003	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R005	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R009	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R010	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R011	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R012	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R013	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R014	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R015	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R016	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R017	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R018	1-216-691-11	METAL CHIP 47K 0.5% 1/10W	
R019	1-216-691-11	METAL CHIP 47K 0.5% 1/10W	
R020	1-216-687-11	METAL CHIP 33K 0.5% 1/10W	
R021	1-216-687-11	METAL CHIP 33K 0.5% 1/10W	
R022	1-216-687-11	METAL CHIP 33K 0.5% 1/10W	
R023	1-216-674-11	METAL CHIP 9.1K 0.5% 1/10W	
R024	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R025	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R026	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R027	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R028	1-216-039-00	METAL CHIP 390 5% 1/10W	
R029	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R031	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R032	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R033	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R034	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R035	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R036	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R037	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R038	1-216-039-00	METAL CHIP 390 5% 1/10W	
R039	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R040	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R041	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R043	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R044	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R045	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R046	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R047	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R048	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R049	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R050	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R051	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R052	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R053	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R054	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R055	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R056	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R057	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R058	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R059	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R060	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R061	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R062	1-216-039-00	METAL CHIP 390 5% 1/10W	
R063	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R064	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R065	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R066	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R067	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R068	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R069	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R070	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R071	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R072	1-216-043-00	METAL CHIP 560 5% 1/10W	
R073	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R074	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R075	1-216-039-00	METAL CHIP 390 5% 1/10W	
R076	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R077	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R078	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R079	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R080	1-216-080-00	METAL CHIP 20K 5% 1/10W	

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Ref. No.	Part No.	Description	Remark
R422	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R502	1-216-045-00	METAL CHIP 680 5% 1/10W	
R503	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R504	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R505	1-216-033-00	METAL CHIP 220 5% 1/10W	
R506	1-216-035-00	METAL CHIP 270 5% 1/10W	
R507	1-216-041-00	METAL CHIP 470 5% 1/10W	
R508	1-216-076-00	METAL GLAZE 13K 5% 1/10W	
R509	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R510	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R511	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R512	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R513	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R514	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R515	1-216-041-00	METAL CHIP 470 5% 1/10W	
R551	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R552	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R553	1-216-748-11	METAL CHIP 39K 5% 1/10W	
R554	1-216-685-11	METAL CHIP 27K 0.5% 1/10W	
R555	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R556	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R557	1-216-109-00	METAL CHIP 330K 5% 1/10W	
R558	1-216-295-00	METAL CHIP 0 5% 1/10W	
R561	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R562	1-216-090-00	METAL CHIP 51K 5% 1/10W	
R563	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R564	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R565	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R566	1-216-041-00	METAL CHIP 470 5% 1/10W	
R567	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R602	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R604	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R605	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R606	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R607	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R608	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R609	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R610	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R611	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R612	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R613	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R614	1-216-049-00	METAL CHIP 1K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R615	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R616	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R617	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R618	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R619	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R620	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R621	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R622	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R623	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R624	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R625	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R626	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R627	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R628	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R629	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R630	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R632	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R633	1-216-045-00	METAL CHIP 680 5% 1/10W	
R634	1-216-045-00	METAL CHIP 680 5% 1/10W	
R635	1-216-045-00	METAL CHIP 680 5% 1/10W	
R636	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R637	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R638	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R639	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R640	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R641	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R643	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R644	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R701	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R702	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R703	1-216-695-11	METAL CHIP 68K 0.5% 1/10W	
R704	1-216-697-11	METAL CHIP 82K 0.5% 1/10W	
R705	1-216-663-11	METAL CHIP 3.3K 0.5% 1/10W	
R706	1-216-697-11	METAL CHIP 82K 0.5% 1/10W	
R707	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R708	1-216-685-11	METAL CHIP 27K 0.5% 1/10W	
R709	1-216-681-11	METAL CHIP 18K 0.5% 1/10W	
R710	1-216-681-11	METAL CHIP 18K 0.5% 1/10W	
R711	1-216-666-11	METAL CHIP 4.3K 0.5% 1/10W	
R712	1-216-693-11	METAL CHIP 56K 0.5% 1/10W	
R713	1-216-691-11	METAL CHIP 47K 0.5% 1/10W	
R714	1-216-663-11	METAL CHIP 3.3K 0.5% 1/10W	

Ref. No.	Part No.	Description				Remark
R173	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R174	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R175	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R177	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R180	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R181	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R204	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R205	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R206	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R207	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R208	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R209	1-216-117-00	METAL CHIP	680K	5%	1/10W	
R210	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R211	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R215	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R216	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R217	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R218	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R219	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R220	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R221	1-216-111-00	METAL CHIP	390K	5%	1/10W	
R222	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R223	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R224	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R225	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R226	1-216-045-00	METAL CHIP	680	5%	1/10W	
R227	1-216-045-00	METAL CHIP	680	5%	1/10W	
R228	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R234	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R235	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R236	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R237	1-216-295-00	METAL CHIP	0	5%	1/10W	
R301	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R302	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R303	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R304	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R305	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R306	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R307	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R308	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R309	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R310	1-216-295-00	METAL CHIP	0	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R312	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	
R313	1-216-295-00	METAL CHIP	0	5%	1/10W	
R314	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R316	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R317	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R318	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R319	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R320	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R321	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R322	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R323	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R324	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R325	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R326	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R327	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R328	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R329	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R330	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R331	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R332	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R401	1-216-043-00	METAL CHIP	560	5%	1/10W	
R402	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R403	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R404	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R405	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R406	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R407	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R408	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R409	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R410	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R411	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R412	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R413	1-216-052-00	METAL CHIP	1.3K	5%	1/10W	
R414	1-216-045-00	METAL CHIP	680	5%	1/10W	
R415	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R416	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R417	1-216-047-00	METAL CHIP	820	5%	1/10W	
R418	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R419	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R420	1-216-029-00	METAL CHIP	150	5%	1/10W	
R421	1-216-081-00	METAL CHIP	22K	5%	1/10W	

TR-40 TS-74 (L) TS-74 (R)

Ref. No.	Part No.	Description	Remark
		(JACK)	
J401	1-566-847-41	CONNECTOR, (S) TERMINAL 4P (S VIDEO OUT)	
J402	1-566-847-41	CONNECTOR, (S) TERMINAL 4P (S VIDEO IN)	
		(VARIABLE RESISTOR)	
RV401	1-230-694-11	RES, VAR, CARBON 250K	
		(SWITCH)	
S401	1-553-725-21	SWITCH, SLIDE (SYNC INT/EXT)	
S402	1-553-725-21	SWITCH, SLIDE (EDIT)	

****

Ref. No.	Part No.	Description	Remark
*	A-7070-628-A	TS-74 (L) BOARD, COMPLETE	
		*************************	
		(TRANSISTOR)	
Q715	8-729-700-08	TRANSISTOR NJL714E	

****

Ref. No.	Part No.	Description	Remark
*	A-7070-627-A	TS-74 (R) BOARD, COMPLETE	
		*************************	
		(TRANSISTOR)	
Q715	8-729-700-08	TRANSISTOR NJL714E	

****

MISCELLANEOUS
****

Ref. No.	Part No.	Description	Remark
C901	1-161-057-00	CERAMIC 0.033uF 10% 50V (ON M906)	
C902	1-161-057-00	CERAMIC 0.033uF 10% 50V (ON M904)	
M902	8-835-304-11	MOTOR, DC U-11B (REEL)	
M901	A-7048-201-A	DRUM ASSY (DGH-35-A-R) (DRUM)	
M903	8-835-364-01	MOTOR, DC BHF-2802B (CAPSTAN)	
M904	X-3711-936-1	MOTOR ASSY, FL (CASSETTE LOADING)	
M905	8-835-138-01	MOTOR, DC (DNR-5301B) (CONTROL)	
M906	A-7040-065-A	MOTOR ASSY, L (LOADING)	
M907	1-541-360-21	MOTOR, DC BLUSHLESS FAN	
PM901 ⚠	1-454-377-31	SOLENOID, PLUNGER	

Ref. No.	Part No.	Description	Remark
S901	1-570-407-11	SWITCH, SLIDE (CASSETTE LOADING)	
S903	1-553-226-00	SWITCH, LEAF (CASSETTE LOCK)	
S904	1-572-298-21	SWITCH, PUSH (REC PROOF, MPHG, ME/MP)	

****

ACCESSORY & PACKING MATERIAL
****

Ref. No.	Part No.	Description	Remark
*	3-697-977-51	INDIVIDUAL CARTON	
*	3-697-978-01	CUSHION (UPPER)	
*	3-697-979-01	CUSHION (LOWER)	
*	3-704-350-01	SHEET (STANDARD), PROTECTION	
	3-753-324-21	MANUAL, INSTRUCTION (ENGLISH)	
	3-753-324-31	MANUAL, INSTRUCTION (FRENCH)	
*	3-795-581-21	SAFEGUARD (SONY), IMPORTANT	

****

HARDWARE LIST
****

Ref. No.	Part No.	Description	Remark
#1	7-621-255-45	SCREW +BVTT 2X6 (S)	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#3	7-682-555-09	SCREW +P 3X30	
#4	7-627-850-18	SCREW, PRECISION +P 1.4X2.5	
#5	7-621-772-10	SCREW +B 2X4	
#6	7-621-255-65	SCREW +P 2X10	
#7	7-627-553-28	SCREW, PRECISION +P 2X2.5	
#8	7-621-255-25	SCREW +P 2X4	
#9	7-624-102-04	STOP RING 1.5, TYPE-E	
#10	7-624-105-04	STOP RING 2.3, TYPE-E	
#11	7-628-253-20	SCREW +PS 2X6	
#12	7-628-253-00	SCREW +PSW 2X4	
#13	7-627-553-48	SCREW, PRECISION +P 2X4	
#14	7-621-255-50	SCREW +P 2X8	
#15	7-624-106-04	STOP RING 3.0, TYPE-E	
#16	7-627-553-68	SCREW (±M2X6), SPECIAL	
#17	7-621-255-15	SCREW +PTT 2X3 (S)	
#18	7-621-255-20	SCREW +P 2X4	
#19	7-685-133-19	SCREW +P 2.6X6 TYPE2 NON-SLIT	
#20	7-671-154-01	STEEL, BALL	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
		(VARIABLE RESISTOR)	
RV101	1-230-875-21	RES, ADJ, METAL 220K	
RV102	1-230-875-21	RES, ADJ, METAL 220K	
RV103	1-230-871-11	RES, ADJ, METAL 22K	
RV104	1-230-871-11	RES, ADJ, METAL 22K	
RV105	1-230-870-11	RES, ADJ, METAL 10K	
RV106	1-230-870-11	RES, ADJ, METAL 10K	
RV201	1-230-873-11	RES, ADJ, METAL 47K	
RV203	1-230-869-11	RES, ADJ, METAL 4.7K	
RV204	1-230-869-11	RES, ADJ, METAL 4.7K	
RV301	1-230-868-11	RES, ADJ, METAL 2.2K	
RV302	1-230-868-11	RES, ADJ, METAL 2.2K	
RV303	1-230-869-11	RES, ADJ, METAL 4.7K	
RV304	1-230-873-11	RES, ADJ, METAL 47K	
		(CRYSTAL)	
X001	1-577-116-21	CRYSTAL (16MHz)	
X002	1-567-346-11	OSCILLATOR, CERAMIC (5MHz)	
X003	1-567-346-11	OSCILLATOR, CERAMIC (5MHz)	
X004	1-567-160-21	RESONATOR, CERAMIC (4.19MHz)	
X101	1-567-505-11	OSCILLATOR, CRYSTAL (3.58MHz)	
***			
*	1-633-699-11	TC-20 BOARD ***********	
	1-809-338-11	INDICATOR, LED	
		(CAPACITOR)	
C701	1-135-162-21	TANTALUM CHIP 33uF 20% 6.3V	
C702	1-135-162-21	TANTALUM CHIP 33uF 20% 6.3V	
C703	1-135-162-21	TANTALUM CHIP 33uF 20% 6.3V	
C704	1-135-162-21	TANTALUM CHIP 33uF 20% 6.3V	
C705	1-135-162-21	TANTALUM CHIP 33uF 20% 6.3V	
C706	1-135-162-21	TANTALUM CHIP 33uF 20% 6.3V	
C707	1-135-162-21	TANTALUM CHIP 33uF 20% 6.3V	
C708	1-135-162-21	TANTALUM CHIP 33uF 20% 6.3V	
		(TRANSISTOR)	
Q701	8-729-140-88	TRANSISTOR FP1A3M	
Q702	8-729-140-88	TRANSISTOR FP1A3M	
Q703	8-729-140-88	TRANSISTOR FP1A3M	
Q704	8-729-140-88	TRANSISTOR FP1A3M	
Q705	8-729-140-88	TRANSISTOR FP1A3M	
Q706	8-729-140-88	TRANSISTOR FP1A3M	
Q707	8-729-140-88	TRANSISTOR FP1A3M	
Q708	8-729-140-88	TRANSISTOR FP1A3M	
Q709	8-729-900-53	TRANSISTOR DTC114EK	
Q710	8-729-900-53	TRANSISTOR DTC114EK	
Q711	8-729-900-53	TRANSISTOR DTC114EK	
Q712	8-729-900-53	TRANSISTOR DTC114EK	
Q713	8-729-900-53	TRANSISTOR DTC114EK	
Q714	8-729-900-53	TRANSISTOR DTC114EK	
Q715	8-729-900-53	TRANSISTOR DTC114EK	
		(RESISTOR)	
R701	1-216-013-00	METAL CHIP 33 5% 1/10W	
R702	1-216-013-00	METAL CHIP 33 5% 1/10W	
R703	1-216-013-00	METAL CHIP 33 5% 1/10W	
R704	1-216-013-00	METAL CHIP 33 5% 1/10W	
R705	1-216-013-00	METAL CHIP 33 5% 1/10W	
R706	1-216-013-00	METAL CHIP 33 5% 1/10W	
R707	1-216-013-00	METAL CHIP 33 5% 1/10W	
R708	1-216-013-00	METAL CHIP 33 5% 1/10W	
R709	1-216-029-00	METAL CHIP 150 5% 1/10W	
R710	1-216-029-00	METAL CHIP 150 5% 1/10W	
R711	1-216-029-00	METAL CHIP 150 5% 1/10W	
R712	1-216-029-00	METAL CHIP 150 5% 1/10W	
R713	1-216-029-00	METAL CHIP 150 5% 1/10W	
R714	1-216-029-00	METAL CHIP 150 5% 1/10W	
R715	1-216-029-00	METAL CHIP 150 5% 1/10W	
***			
*	1-633-700-11	TR-40 BOARD ***********	
		(CONNECTOR)	
CN401	1-506-484-11	CONNECTOR 5P, MALE	
CN402	1-506-487-11	CONNECTOR 8P, MALE	
CN403	1-506-481-11	CONNECTOR 2P, MALE	

7-1-2. PERIODIC CHECK

Perform the maintenance and periodic checks described below in accordance with the operational hour of the unit.

○ : Cleaning ◆ : Replacement ◇ : Checking ■ : Oiling

Location			Hours of Use (H) : MENU No. (Drum rotation)										Reference Section
	Parts Name	Parts No.	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000	
Tape Path	Tape Path surface	–	○	○	○	○	○	○	○	○	○	○	7-1-1
	Upper Drum Ass'y (DGR-35-R)	A-7049-188-A	○	◇	○	◇	○	◇	○	◇	○	◇	7-2-2
	Drum Ass'y (DGH-35A-R)	A-7048-201-A	○	◇	○	◇	○	◇	○	◇	○	◇	7-2-3
	Pinch Roller Arm Ass'y	X-3686-576-1	○	○	○	○	○	○	○	○	○	○	7-2-5
	(Note 4:) Capstan shaft bearing	8-835-364-01	–	■	–	■	–	■	–	■	–	■	——
Drive System	Threading motor belt	3-686-546-01	○	○	○	○	○	○	○	◆	○	○	7-2-7
	Blake plunger	1-454-377-31	–	–	–	○	–	–	–	○	–	–	7-2-20
	Threading motor	A-7040-065-A	–	◇	–	◇	–	◇	–	◇	–	◇	7-2-7
	Control motor	8-835-138-01	–	◇	–	◇	–	◇	–	◇	–	◇	7-2-21
	Reel motor	8-835-304-11	–	◇	–	◇	–	◇	–	◇	–	◇	7-2-8
	T Reel Table Ass'y	X-3711-998-1	○	○	○	○	○	○	○	○	○	○	7-2-14
	S Reel Table Ass'y	X-3713-427-1	○	○	○	○	○	○	○	○	○	○	7-2-13
	T•Main Brake Ass'y	X-3686-574-1	–	◇	–	◇	–	◇	–	◇	–	◇	——
	S•Main Brake Ass'y	X-3713-429-1	–	◇	–	◇	–	◇	–	◇	–	◇	——
	T•S Brake Ass'y	X-3711-987-2	–	◇	–	◇	–	◇	–	◇	–	◇	——
	REW Brake Ass'y	X-3711-993-1	–	◇	–	◇	–	◇	–	◇	–	◇	——
	Tension Regulator Band Ass'y	X-3686-531-1	–	◇	–	◇	–	◇	–	◇	–	◇	7-2-16
	Roller (Cassette-up Compartment)	3-713-466-01	–	–	–	–	–	○	–	–	–	–	——
Performance Check	Abnormal-noise	–	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	——
	FWD Back tension measurement	–	–	◇	–	◇	–	◇	–	◇	–	◇	7-3-5
	Brake torque measurement	–	–	◇	–	◇	–	◇	–	◇	–	◇	7-3-1 to 7-3-3
	FWD, RVS torque measurement	–	–	◇	–	◇	–	◇	–	◇	–	◇	7-3-4

Note 1: When overhauling the unit, refer to the items above for replacement of parts.
Note 2: The time of parts replacement will differ with operating environment
Note 3: Be sure to clean the tape path surface in repairing.
Note 4: Oiling to the Capstan Shaft Bearing.
Apply one-half drop of oil to the Capstan Shaft Bearing.
(Never apply oil to the tape path surface.)

SECTION 7
MECHANICAL ADJUSTMENT

7-1. PERIODIC CHECK AND MAINTENACE

It is recommended that the following periodic check and maintenance schedule are employed in order to obtain maximum performance of the unit and longer tape life.

7-1-1. MAINTENANCE AFTER REPAIRS

Perform the following maintenance after repair regardless the operating hours of the unit.

(1) Cleaning of the Rotary Upper Drum

- Press the cleaning piece moistend with cleaning fluid lightly against the Rotary Upper Drum and turn slowly the Upper Drum counterclockwise with a hand.

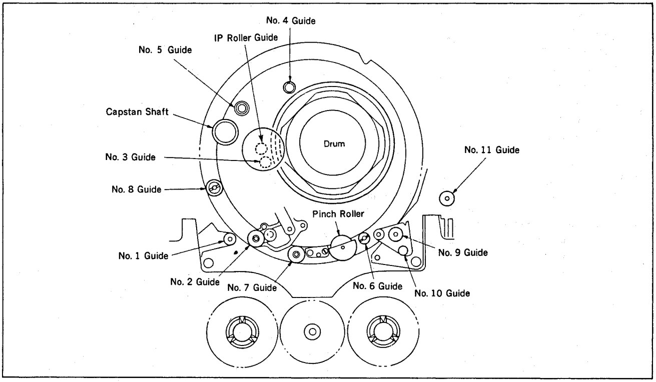
  Note: Never turn the Upper Drum by the electric power and never turn the Upper Drum clockwise with a hand. Never move the cleaning piece in the veritical direction of head tips in the cleaning. It tends to damage the video head tips. Please follow the instruction above for cleaning.

2) Cleaning of Tape Running System (fig.1)

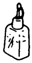
- Put the cassette compartment into the EJECT completion mode and clean the tape running system (No.1 thru No.11 Guides, Capstan Shaft, Pinch Rolloer and IP Roller Guide) with cleaning piece moistend with the clearning the fluid.

(3) Cleaning of Drive System

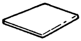
- Clean the Drive system (reel table surface, belt and timing belt) with cleaning piece moistend with the cleaning fluid.


No. 4 Guide
IP Roller Guide
No. 5 Guide
Capstan Shaft
Drum
No. 3 Guide
No. 11 Guide
No. 8 Guide
Pinch Roller
No. 1 Guide
No. 9 Guide
No. 2 Guide
No. 7 Guide
No. 6 Guide
No. 10 Guide

J-1



J-2



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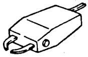

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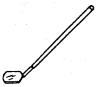

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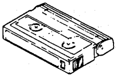

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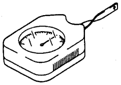

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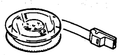

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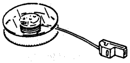
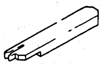
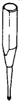


J-9

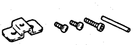


J-10

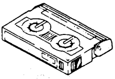


J-11

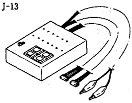
(Packed with the rotary upper drum for repair)



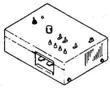
J-12



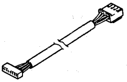
J-13



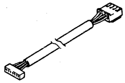
J-14



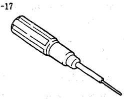
J-15



J-16



J-17



7-1-3. SERVICING TOOLS

Ref. No.	Parts No.	Description	Application
J-1	Y-2031-001-1	Cleaning Fluid	Cleaning
J-2	7-741-900-53	Wiping Cloth	Cleaning
J-3	Commercially sold	Head Degausser	Head degauss
J-4	J-6080-840-A	Small Adjustment Mirror	Tape path adjustment
J-5	8-967-995-02	Alignment Tape, WR5-1NP	Tape path adjustment
	8-967-995-13	Alignment Tape, WR5-7NE	Video frequency response adjustment
	8-967-995-42	Alignment Tape, WR5-5NSP	Video adjustment
	8-967-995-43	Alignment Tape, WR5-8NSE	Serve, audio and video adjustment (SP)
	8-967-995-52	Alignment Tape, WR5-8NLE	Servo, audio and video adjustment (LP)
J-6	J-6080-827-A	Dial Tension Gauge	Measurement of torque
J-7	J-6080-831-A	Tension Measurement Reel	FWD Back tension adjustment
J-8	J-6080-832-A	Tension Measurement Reel	Brake torque check
J-9	J-6080-823-A	No. 10 Gear Phase Tool	Threading ring assembly replacemnt
J-10	J-6080-826-A	No. 6 Guide Lock Screwdriver	Tape path adjustment
J-11	——	Rotary Drum Tool (packed with the Rotary Upper Drum for repair)	Rotary upper drum replacement
J-12	J-6080-824-A	FWD, RVS Winding Torque Cassette	S•T reel table winding torque check
J-13	J-6080-825-A	Mode Selector	Mechanical check, adjustment and replacement
J-14	J-6080-891-A	Track Shift Tool	Tape path adjustment
J-15	J-6080-883-A	RE/SWP Connector	Tape path adjustment
J-16	J-6080-884-A	CTL Connector	Tape path adjustment
J-17	7-700-766-01	Hexagonal Screwdriver (0.89 mm)	Tape path adjustment

7-2. REPLACEMENT OF MAJOR PARTS

PREPARATION FOR REPLACEMENT OF PARTS

Replacement of some parts use the *Mode Selector. The mode (☐ marked mode) in the replacement procudure is set by pressing the button on the Mode Selector.

*It is a kind of tool.
Part No. : J-6080-825-A

. Operation of Mode selector

1. Location of parts and controls (fig. 1)
2. Connection (fig. 2)

(1) Remove the Front Panel, Top Plate and Bottom Plate referring to Section 2-1.

(2) Remove the Mecha Deck Block from the unit referring to Section 2-5.

(3) Remove the MB-19, MD-23, HK-4 and SE-10 Boards from the unit referring to Sections 2-8, 2-9 and 2-10.

(4) Disconnect the connectors (6P) on the MS-4 and LS-9 Boards.

(5) Connect the 6P connector (six harness, white) for the M-switch of the Mode Selector to the MS-4 Board.

(6) Connect the 6P connector (four harness, black) for the L-switch of the Mode Selector to the LS-9 Board.

(7) Remove the cover of the Threading Motor.

(8) Connect the red clip of the Threading Motor driver lead to the red terminal of the Threading Motor and the black clip to the brown terminal.

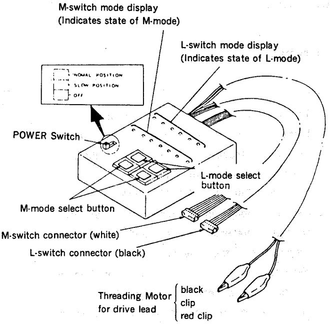

M-switch mode display
(Indicates state of M-mode)
L-switch mode display
(Indicates state of L-mode)
NOMAL POSITION
SLOW POSITION
OFF
POWER Switch
L-mode select button
M-mode select button
M-switch connector (white)
L-switch connector (black)
Threading Motor for drive lead
black clip
red clip

Fig. 1

7-1-4. HOW TO USE THE CLEANING TAPE

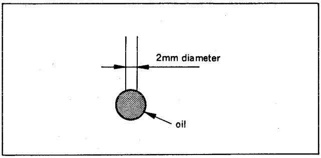
Cleaning Tape: V8-25CLH (separately available)

. Never use the cleaning tape, V8-25CLN.

(1) When the rotary heads clog and head cleaning descrived Section 3-1 can not clean the heads, use the cleaning tape.
If use the cleaning tape except for the above, it will shorten the life of the heads.
(2) The one time cleaning is within fifteen seconds and never reuse the cleaning tape after rewinding.

7-1-5. OTHERS

(1) Sony oil
- Be sure to use the Sony oil as the lubrication oil. (If other oil is useed, various troubles due to different viscosity tends to be caused.)
  Sony oil: Part No. 7-661-018-18
- Use the Sony oil in which dust or other foreign material have not mixed for lubricating the bearing. (If foreign material is in the oil, wear or burning of the bearing tends to be caused.)
- One drop of oil means the amount which sticks to a 2 mm diameter rod, as shown in the figure.



(2) Sony grease
- Be sure to use the Sony grease as the lubrication grease.
  Sony grease: Part No. 7-662-001-62
  (SGL-501)

(3) MOLYTONE GREASE
- Be sure to use the MOLYTONE GREASE as the lubrication grease.
  MOLYTONE GREASE: Part No. 7-662-001-41
  (No. 320)

7-2-1. REPLACEMENT OF THE FLY WHEEL

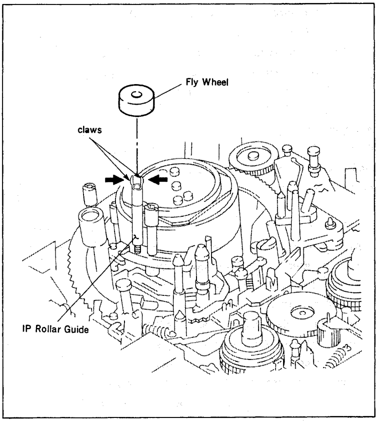
Removal:

(1) Open the MB-19 Board referring to Section 2-8.

(2) Remove the Fly Wheel while picking the claws.

Installation:

(1) Replace the Fly Wheel with a new one. Insert the Fly Wheel in the IP Rollar Guide from the big hole side until click sound can be heard.


Fly Wheel
claws
IP Rollar Guide

3. Note

(1) When operating L-switch, be sure to set the mode of M-switch to LOADING/ UNLOADING mode.

(2) When operating M-switch, be sure to set the mode of L-switch to LOADING TOP or LOADING END mode.

4. Operation

When L-mode or M-mode does not set in each mode during mode selection, the BLANK position lights up.

(1) L-mode

- When the right side L-mode select button is pressed continuously, the mode changes from LOADING TOP to LOADING END in order from left.
- When the mode changes from LOADING END to LOADING TOP in order, press the left side L-mode select button cotinuously.
- When the power switch is set to the SLOW position, the L-mode operates more slowly than the NORMAL position.

(2) M-mode

- When performing EJECT, set the mode of L-switch to LOADING TOP.
- When performing from FF/REW to RVS or from RVS to FF/REW, set the mode of L-switch to LOADING END.
- When the right side M-mode select button is pressed continuously, the mode changes from EJECT to RVS in order from left.
- When the mode changes from RVS to EJECT, press the left side M-mode select button continuously.

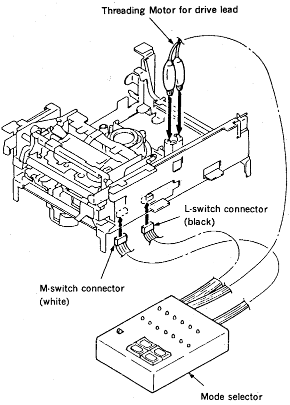

Threading Motor for drive lead
L-switch connector (black)
M-switch connector (white)
Mode selector

Fig. 2

7-2-2. REPLACEMENT OF THE ROTARY UPPER DRUM

- The video heads can not be replaced as a single parts. Replace the whole Rotary Upper Drum Assembly.
- There is a relay PC Board (DH-6 Board) for the video and audio signals in the Rotary Upper Drum. It is not necessary to replace the DH-6 Board, if it is broken, replace the whole the Rotary Upper Drum Assembly.

Tools: Rotary Drum Tool (Ref No. J-11)
(It is packed together with the Repair Rotary Upper Drum.)
L-shaped wrench
(across flat has 1.5 mm)

Removal:

(1) Open the MB-19 Board referring to Section 2-8.

(2) Remove the Fly Wheel reffering to Section 7-2-1.

(3) Remove the two screws (M2 X 2.7) and remove the Dynamic Damper.

(4) Unsolder the ten terminals at A positions. Check that the terminals which are projected out from the PC Board move freely with a pair of tweezers, etc. (fig. 1)

(5) Remove the two screws (M2 X 5).

(6) Install the tool A to the two screw holes of installing the Dynamic Damper with the two accessory supplied screws. Thread the accessory supplied hexagon screw into the center hole of the tool A, and remove the Rotary Upper Drum. (fig. 2)

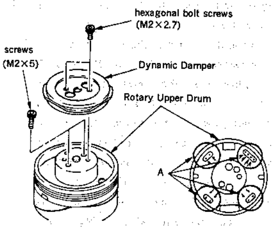

hexagonal bolt screws
(M2×2.7)
screws
(M2×5)
Dynamic Damper
Rotary Upper Drum
A

Fig. 1

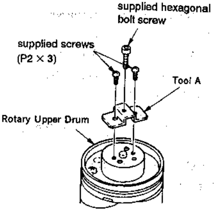

supplied hexagonal
bolt screw
supplied screws
(P2 × 3)
Tool A
Rotary Upper Drum

Fig. 2

Installation:

(1) Clean the flange surface of the Lower Drum and the contact point of the new Rotary Upper Drum with a cleaning piece. Check that no dust or flaw are left.

(2) While adjusting the positional relationship of the Rotary Upper Drum and positioning hole with the tool B, insert the Rotary Upper Drum lightly. At this time, Check that the terminals project out from the PC Board of the Rotary Upper Drum. When the terminals are caught, correct them with a pair of tweezers, etc.. Remove the tool B and lightly push the Rotary Upper Drum by hand. If the Rotary Upper Drum does not down to the botom, thread the two fixing screws to the Rotary Upper Drum alternately, but do not tighten them. Insert the tool B in the positioning hole and check that the tool B can be inserted smoothly again. If the tool B can not be inserted, loosen the two screws (M 2 X 5) and adjust the position of the Rotary Upper Drum by precision screwdriver. (fig. 3 and 4)

(3) Tighten the two screws (M2 X 5).

(4) Assemble the parts with Removal Steps (1) to (4) in reverse order.

Note: . Do not tighten all the screws too strongly.

. Be carefull not to flow solder below the PC Board.

After replacement, perform the Tape Path Adjustment referring to Section 7-4.

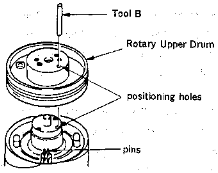


Fig. 3

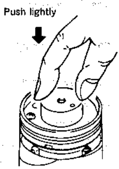


Fig. 4

7-2-3. REPLACEMENT OF THE DRUM ASSEMBLY

Removal:

(1) Open the MB-19 Board referring to Section 2-8.

(2) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(3) Remove the Fly Wheel referring to Section 7-2-1.

(4) Open the HK-4 and SE-10 Boards referring to Sections 2-9 and 2-10.

(5) Remove the two fixing screws and remove the Flexible Cover. (fig. 1)

(6) Disconnect the connectors (CN805, 806) on the MD-23 Board and disconnect the connector (CN001) on the FR-40 Board.

(7) Remove the fixing screw and remove the Shaft Ground Terminal.

(8) Remove the two fixing screws and remove the Drum Assembly. (fig. 2)

Note: At this time, be careful that the Drum Assembly does not touch the No. 3 Guide and the IP Roller Guide, etc..

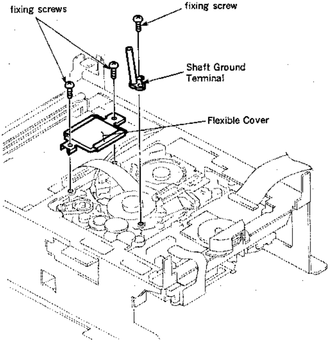

fixing screws
fixing screw
Shaft Ground Terminal
Flexible Cover

Fig. 1

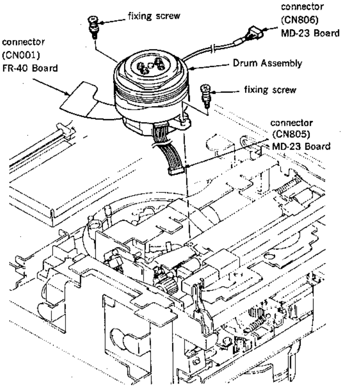

fixing screw
connector (CN806) MD-23 Board
connector (CN001) FR-40 Board
Drum Assembly
fixing screw
connector (CN805) MD-23 Board

Fig. 2

Installation:

(1) Clean the flange surface of the new Drum Assembly and the contact point of the mechanical chassis with a cleaning piece.

(2) Set the Drum Assembly to the two projections of the Mecha chassis and tighten the two fixing screws.

Note: At this time, be careful that the screwdriver does not touch the head chips. (fig. 3)

(3) Peel off the tape from the Rotor and FG Stator of the Drum Assembly.

(4) Clean the shaft of the Drum Assembly with a cleaning piece.

(5) Clean the Shaft Ground Terminal which contact to the Drum Shaft with a cleaning piece and set the Shaft Ground Terminal to the projection of mechanical chassis and tighten the fixing screw.

(6) Assemble the parts with Removal Steps (1) to (6) in reverse order.

After replacement, perform the Tape Path Adjustment referring to Section 7-4.

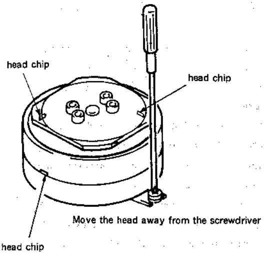


Fig. 3

7-2-4. REPLACEMENT OF THE THREADING RING ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
No. 10 Gear Phase Tool
(Ref. No. J-9)
Sony Oil

Removal:

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(2) Press the L-mode select button of the Mode Selector and move the Guide Base Assembly and the No. 2 Guide Assembly until just before it is locked. (Do not move the Threading Ring Assembly.)

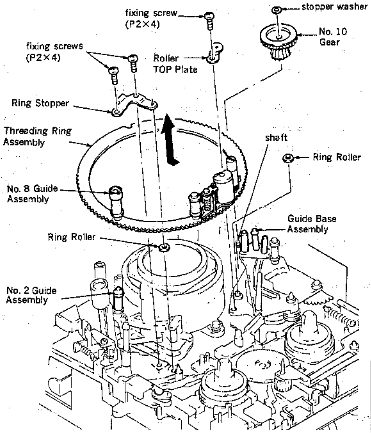
(3) Remove the stopper washer and remove the No. 10 Gear Assembly.

(4) Remove the fixing screw and remove the Roller Top Plate and Ring Roller.

(5) Remove the two fixing screws and remove the Ring Stopper and Ring Roller.

(6) Remove the Threading Ring Assembly in the direction of the arrow.

Note: When removing the Threading Ring Assembly, be careful that the Threading Ring Assembly does not touch the Drum and Capstan Shaft.


fixing screw
(P2×4)
stopper washer
No. 10
Gear
fixing screws
(P2×4)
Roller
TOP Plate
Ring Stopper
Threading Ring
Assembly
shaft
Ring Roller
No. 8 Guide
Assembly
Guide Base
Assembly
Ring Roller
No. 2 Guide
Assembly

Installation:

(1) Replace the Threading Ring Assembly with a new one.

(2) Install the Threading Ring Assembly so that it puts into the unthreading mode. The Pinch Roller Arm Assembly is the Reel Table side. (Check that each assembly is put into the Step (2) at removal procedure.)

(3) Install the Ring Roller and Ring Stopper and tighten them with two fixing screws. (Check that the No. 8 Guide Assembly is in front of Ring Stopper.)

(4) Install the Ring Roller and Roller Top Plate and tighten them with the screw. (Check that the Threading Ring Assembly matches the three Ring Rollers.)

(5) Apply a half drop of oil on the shaft.

(6) Check that the pin of the Drive Changer Assembly is into the notch of the L-switch Assembly. Insert the No. 10 Gear Phase Tool (Ref. No. J-9) into the notch of the L-SW Assembly.

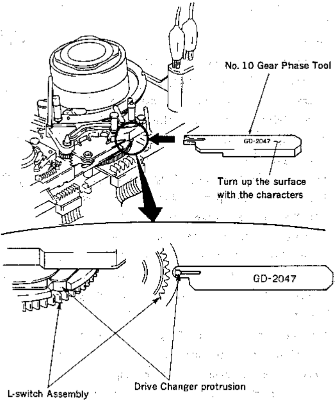
(7) While pushing the No. 8 Guide Assembly against the Ring Stopper, install the No.10 Gear Assembly with a stopper washer.

(8) Pull out the No. 10 Gear Phase Tool.

(9) Press the L-mode select button of the Mode Selector and set to the LOADING TOP mode.

(10) Install the Cassette-up Compartment Assembly referring to Section 2-13.

After replacement, perform the Tape Path Adjustment referring to Section 7-4.



7-2-5. REPLACEMENT OF THE PINCH ROLLER ARM ASSEMBLY

Removal:

(1) Open the MB-19 Board referring to Section 2-8.

(2) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(3) Remove the stopper washer. (fig. 1)

(4) Hook the spring which is hooked to the No. 7 Guide Assembly to the groove of the Pinch Roller Arm (fig. 2)

(5) Turn the Pinch Roller Arm Assembly in the direction of the arrow. (fig. 3)

(6) Remove the Pinch Roller Arm Assembly in the direction of the arrow. (fig. 4)

(7) Remove the spring. (fig. 5)

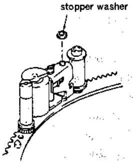

stopper washer

Fig. 1

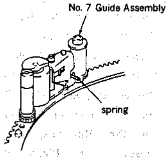

No. 7 Guide Assembly
spring

Fig. 2

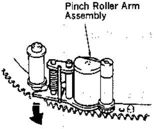

Pinch Roller Arm Assembly

Fig. 3

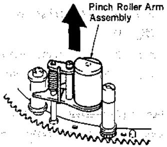

Pinch Roller Arm Assembly

Fig. 4

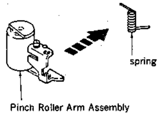

spring
Pinch Roller Arm Assembly

Fig. 5

Installation:

1. (1) Replace the Pinch Roller Arm Assembly with a new one.
2. (2) Install the spring and hook the ends of the spring to the Pinch Roller Arm Assembly. (fig. 1)
3. (3) Insert the end of the clip or another thin rod into the hole of the Pinch Roller Arm Assembly. (fig. 2 and 3)
4. (4) Put the end of the clip to the shaft of the Threading Ring Assembly and install the Pinch Roller Assembly. (fig. 4 and 5)
5. (5) Hook the end of the spring to the No. 7 Guide Assembly.
   At this time, check that the another end of the spring is hooked to "A". (fig. 6)
6. (6) Assemble the parts with Removal Steps (1) to (3) in reverse order.

After replacement, perform the Tape Path Check referring to Section 7-4-6.

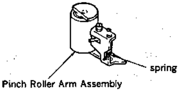

spring
Pinch Roller Arm Assembly

Fig. 1

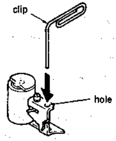


Fig. 2

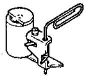


Fig. 3

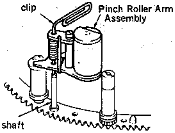

clip
Pinch Roller Arm Assembly
shaft

Fig. 4

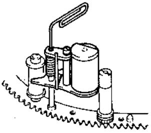


Fig. 5

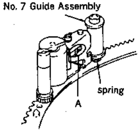

No. 7 Guide Assembly
spring
A

Fig. 6

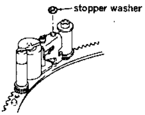

stopper washer

Fig. 7

7-2-6. REPLACEMENT OF THE CAPSTAN MOTOR

Removal:

(1) Open the MB-19 Board referring to Section 2-8.

(2) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(3) Remove the Threading Ring Assembly referring to Section 7-2-4.

(4) Open the HK-4 and SE-10 Boards referring to Sections 2-9 and 2-10.

(5) Remove the two fixing screws and remove the Flexible Cover.

(6) Remove the harness of the Capstan Motor from the Wire Holder.

(7) Remove the fixing screw and remove the Wire Holder.

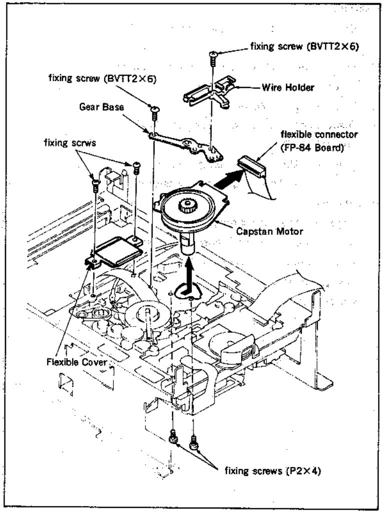
(8) Remove the fixing screw and remove the Gear Base.

(9) Disconnect the flexible connector of the Capstan Motor.

(10) Remove the two fixing screws and remove the Capstan Motor in the direction of the arrow.

Installation:

(1) Replace the Capstan Motor with a new one and assemble the parts with Removal Steps (1) to (10) in reverse order.


fixing screw (BVTT2×6)
fixing screw (BVTT2×6)
Wire Holder
Gear Base
flexible connector (FP-84 Board)
fixing scrws
Capstan Motor
Flexible Cover
fixing screws (P2×4)

7-2-7. REPLACEMENT OF THE THREADING MOTOR ASSEMBLY

Removal:

(1) Open the MB-19 Board referring to Section 2-8.

(2) Open the HK-4 and SE-10 Boards referring to Section 2-9 and 2-10.

(3) Remove the L Motor Belt.

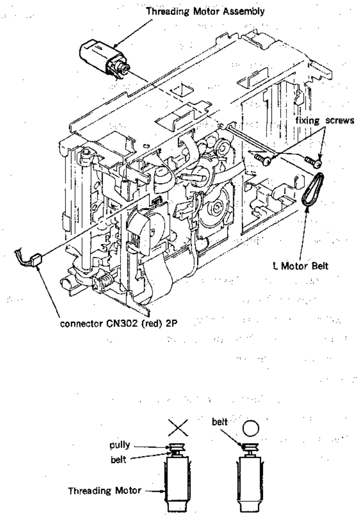
(4) Disconnect the connector (CN302) on the RS-31 Board.

(5) Remove the two fixing screws and remove the Threading Motor Assembly.

Installation:

(1) Replace the Threading Motor Assembly with a new one and assemble the parts with Removal Steps (1) to (5) in reverse order.

Note: Before installing the L Motor Belt, clean it with a cleaning piece and be sure to install the belt in the groove of pulley.


Threading Motor Assembly
fixing screws
L Motor Belt
connector CN302 (red) 2P
✕
belt
○
pully
belt
Threading Motor

7-2-8. REPLACEMENT OF THE REEL MOTOR

Removal:

(1) Open the HK-4 and SE-10 Boards referring to Section 2-9 and 2-10.

(2) Remove the FP-122 Flexible Board from the PC Board of the Reel Motor.

(3) Remove the FP-206 Flexible Board from the RS-31 Board.

(4) Remove the two fixing screws of the Motor Bracket.

(5) Insert a flatblade screwdriver into A, release the projection B and remove the Motor Bracket.

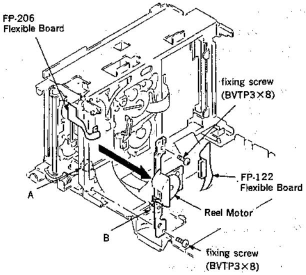
Note: If the Motor Bracket is removed by hand directly, it tends to damage the Motor Bracket.

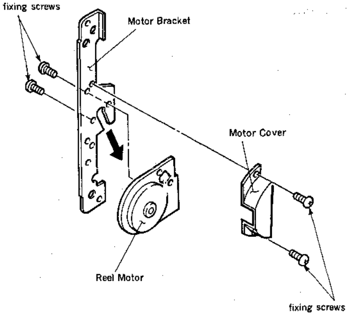
(6) Remove the two fixing screws and remove the Motor Cover from the Motor Bracket.

(7) Remove the two fixing screws and remove the Reel Motor in the direction of the arrow.

Installation:

(1) Replace the Reel Motor with a new one. Assemble the parts with Removal Steps (1) to (7) in reverse order.


FP-206
Flexible Board
fixing screw
(BVTP3×8)
FP-122
Flexible Board
A
Reel Motor
B
fixing screw
(BVTP3×8)


fixing screws
Motor Bracket
Motor Cover
Reel Motor
fixing screws

7-2-9. REPLACEMENT OF THE No. 3 and No. 4 GUIDES

Removal:

(1) Open the MB-19 Board referring to Section 2-8.

(2) When replacing the No. 3 Guide, remove the Fly Wheel referring to Section 7-2-1.

(3) Turn the Rotary Upper Drum counterclockwise and keep heads away from the No. 3 Guide or No. 4 Guide.

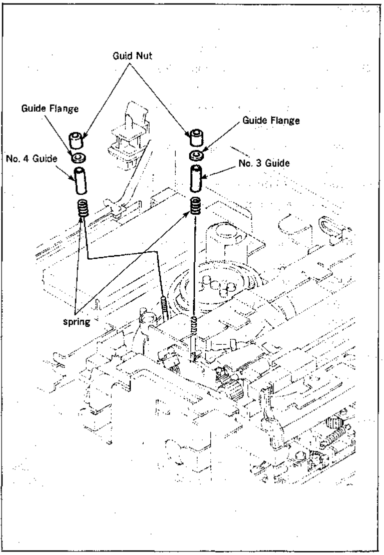
(4) Remove the Guide Nut and remove the Guide Flange, No. 3 Guide (or No. 4 Guide) and spring.

Installation:

(1) Replace the No. 3 Guide (or No. 4 Guide) with a new one.

(2) Assemble the parts with Removal Steps (1) to (4) in reverse order.

After replacement, adjust the height of the No. 3 and No. 4 Guides to meet the tape path condition of Section 7-4-6-3 by turning the Guide Nut.



7-2-10. REPLACEMENT OF THE ENTRANCE GUIDE (P) ASSEMBLY (No. 2 GUIDE ASSEMBLY)

Removal:

(1) Open the MB-19 Board referring to Section 2-8.

(2) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(3) Remove the Fly Wheel referring to Section 7-2-1.

(4) Turn the Rotary Upper Drum counterclockwise and keep heads away from the Entrance Guide (P) Assembly.

(5) Remove the Guide Nut and remove the Guide Flange, No. 3 Guide and spring.

(6) Remove the two fixing screws and remove the Entrance Guide (P) Assembly.

Installation:

(1) Check that the mechanical block is put into the LOADING TOP mode.

(2) Replace the Entrance Guide (P) Assembly with a new one.

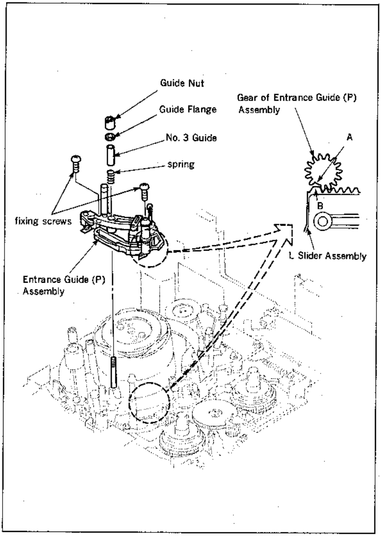
(3) Engage the Entrance Guide (P) Assembly and L Slider Assembly so that their flat portions A and B are matched, and tighten it with two fixing screws.

(4) Assemble the parts with Removal Steps (3) and (5) in reverse order.

(5) Perform the FWD Back Tension Adjustment referring to Section 7-3-5.

(6) Assemble the parts with Removal Steps (1) and (2) in reverse order.

After replacement, perform the Tape Path Adjustment referring to Section 7-4.


Guide Nut
Guide Flange
No. 3 Guide
spring
Gear of Entrance Guide (P) Assembly
A
B
fixing screws
L Slider Assembly
Entrance Guide (P) Assembly

7-2-11. REPLACEMENT OF THE SLANT GUIDE ASSEMBLY

Tool: Mode Selector (Ref. No. J-13)

Removal:

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(2) Remove the Threading Ring Assembly referring to Section 7-2-4.

(3) Remove the fixing screw and E ring.

(4) Remove the Slant Guide Block Assembly.

Installation:

(1) Operate the L-mode select button of the Mode Selector and align the right edge of the L Slider Assembly and the right side of the Lock Slider M Assebmly. (fig. 2)

Note: At this time, check that the position of the notch on the Slant Guide Drive Gear is placed as shown in figure 2.

(2) Assemble the Guide Base Assembly of new Slant Guide Block Assembly the position of the *unthreading end.

*The Guide Base Assembly is the Reel Table side.

(3) Assemble the parts with Removal Steps (1) to (3) in reverse order.

After replacement, perform the Tape Path Check referring to Section 7-4-6.

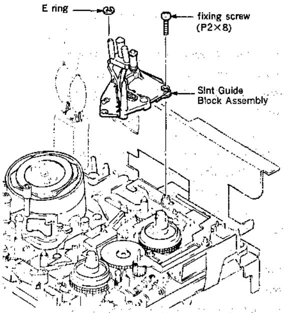

E ring
fixing screw (P2×8)
Slnt Guide Block Assembly

Fig. 1

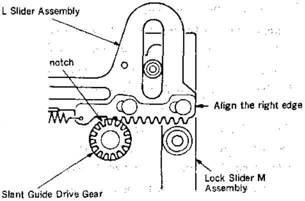

L Slider Assembly
notch
Align the right edge
Lock Slider M Assembly
Slant Guide Drive Gear

Fig. 2

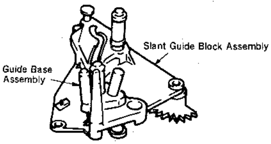
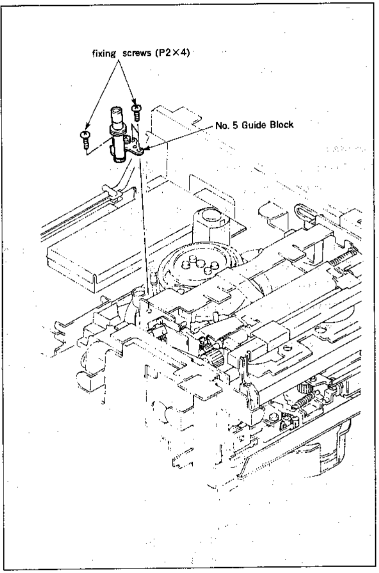

Slant Guide Block Assembly
Guide Base Assembly

Fig. 3

7-2-12. REPLACEMENT OF THE No. 5 GUIDE BLOCK COMPLETE ASSEMBLY



Removal:

(1) Open the MB-19 Board referring to Section 2-8.

(2) Turn the Rotary Upper Drum counterclockwise and keep heads away from the fixing screw of the Guide Block.

(3) Remove the three fixing screws and remove the No. 5 Guide Block Complete Assembly.

Installation:

(1) Replace the No. 5 Guide Block Complete Assembly with a new one.

(2) Assemble the parts with Removal Steps (1) and (3) in reverse order.

After replacement, perform the Tape Path Adjustment referring to Section 7-4.

7-2-13. REPLACEMENT OF THE S REEL TABLE ASSEMBLY

Tools: Mode Selector (Ref. No. J-14)
Cassette Tape
Dial Tension Gauge (Ref. No. J-6)
Tension Measurement Reel (30 mm dia.)
(Ref. No. J-7)
Sony Oil

Removal:

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(2) Press the M-mode select button of the Mode Selector and set to the FF/REW mode.

(3) Remove the fixing screw and remove the Reel Table Stopper.

(4) Remove the S Reel Table Assembly.
Note: Be sure to hold the upper reel claw when removing the S Reel Table. (Note of figure)

Installation:

(1) Apply a half drop of oil on the top point of the Reel Shaft.

(2) Move the S Main Brake Assemvly in the direction of the arrow.

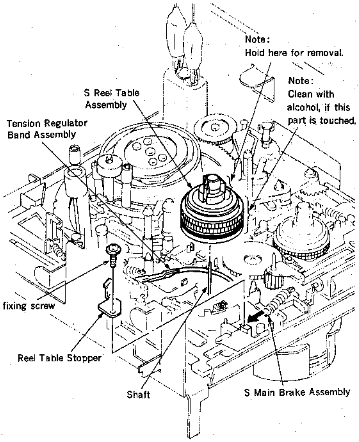
(3) Install the new S Reel Table Assembly while being carefull not to pinch the Tension Regulator Band Assembly.

(4) Install the Reel Table Stopper and tighten it with the fixing screw.

(5) Press the M-mode select button of the Mode Selector and set to the LOADING/UNLOADING mode.

(6) After replacement, perform the FWD running more than two minutes. Then, perform the FWD Back Tension Adjustment referring to Section 7-3-5.

(7) Install the Cassette-up Compartment Assembly referring to Section 2-13.


Note:
Hold here for removal.
Note:
Clean with alcohol, if this part is touched.
S Reel Table Assembly
Tension Regulator Band Assembly
fixing screw
Reel Table Stopper
Shaft
S Main Brake Assembly

7-2-14. REPLACEMENT OF THE T REEL TABLE ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
Sony Oil

Removal:

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(2) Press the L-mode select button of the Mode Selector and set to the UNLOADING WAIT mode.

(3) Hook the spring which is hooked on the T.S Brake Assembly to the claw of the Lock Slider Assembly.

(4) Remove the stopper washer and remove the T.S Brake Assembly.

(5) Press the M-mode select button of the Mode Selector and set to the EJECT mode.

(6) Move the Drive Gear B Assembly in the direction of the arrow.

(7) Remove the T Reel Table Assembly.

Note: Be sure to hold the upper reel claw when removing the T Reel Table. (Note of figure)

Installation:

(1) Apply a half drop of oil on the top point of the Reel Shaft.

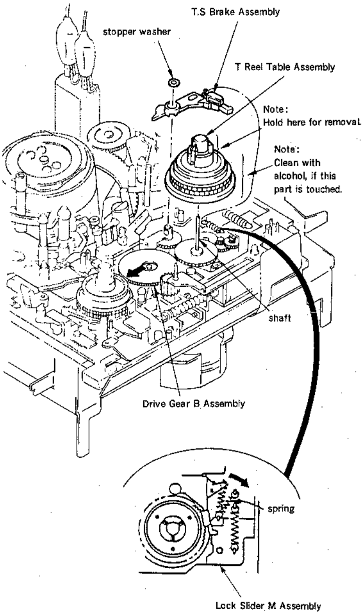
(2) Move the Drive Gear B Assembly in the direction of the arrow. (Check that the Mode Selector sets to EJECT mode.)

(3) Replace the T Reel Table Assembly with a new one.

(4) Assemble the parts with Steps (4) and (5) in reverse order.

(5) Set the L-mode to LOADING TOP mode and set the M-mode to LOADING/UNLOADING mode.

(6) Install the Cassette-up Compartment Assembly referring to Section 2-13.


T.S Brake Assembly
stopper washer
T Reel Table Assembly
Note:
Hold here for removal.
Note:
Clean with alcohol, if this part is touched.
shaft
Drive Gear B Assembly
spring
Lock Slider M Assembly

7-2-15. REPLACEMENT OF THE PINCH PRESS ARM ASSEMBLY

Tool: Sony Oil

Removal:

(1) Open the MB-19 Board referring to Section 2-8.

(2) Hook the spring which is hooked to the Spring Hook Assembly to the Pinch Press Assembly as shown in the figure.

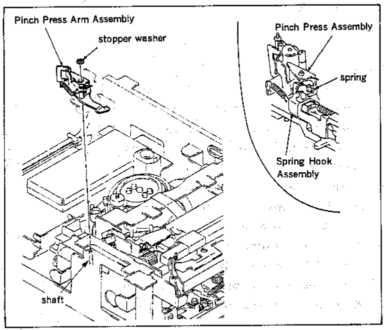
(3) Remove the stopper washer and remove the Pinch Press Arm Assembly.

Installation:

(1) Apply a half drop of oil on the shaft.

(2) Replace the Pinch Press Arm Assembly with a new one.

(3) Assemble the parts with Removal Steps (1) to (3) in reverse order.


Pinch Press Arm Assembly
stopper washer
shaft
Pinch Press Assembly
spring
Spring Hook Assembly

7-2-16. REPLACEMENT OF THE TENSION REGULATOR ARM ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
Sony Oil
Locking Compound

Removal:

(1) Remove the Cassette-up Assembly referring to Section 2-13.

(2) Replace the spring referring to Removal step (2) of Section 7-2-15.

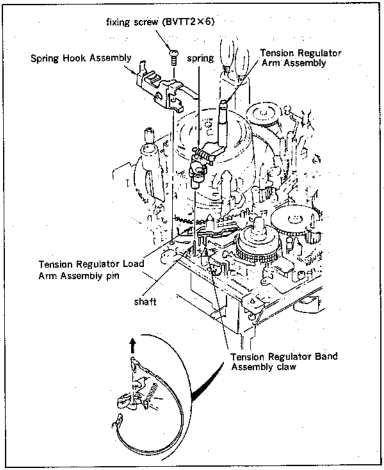
(3) Remove the spring which is hooked to the Tension Regulator Spring Hook Assembly.
(Make a note of the hooking position.)

(4) Remove the fixing screw and remove the Tension Regulator Spring Hook Assembly.

(5) Press the M-mode select button of the Mode Selector and set to the FF/REW mode.

(6) Remove the claw of the Tension Regulator Band Assembly.

(7) Remove the Tension Regulator Arm Assembly.


fixing screw (BVTT2×6)
Spring Hook Assembly
spring
Tension Regulator Arm Assembly
Tension Regulator Load Arm Assembly pin
shaft
Tension Regulator Band Assembly claw

Installation:

(1) Apply a half drop of oil on the shaft.
(2) Replace the Tension Regulator Arm Assembly with a new one.
(3) Install the Tension Regulator Arm Assembly while inserting the pin of the Tension Regulator Load Arm Assembly in the cam groove (on the back of the Arm) of the Tension Regulator Arm Assembly.
(4) Install the claw of the Tension Regulator Band Assembly.
    Note: Do not touch the inside of the band and bend it.
(5) Press the M-mode select button of the Mode Selector and set to the $\boxed{\text{LOADING/UNLOADING}}$ mode.
(6) Install the Tension Regulator Spring Hook Assembly and tighten it with the fixing screw.
(7) Smear the Locking Compound to the head of the fixing screw.
(8) Assemble the Parts with Removal Steps (1) to (3) in reverse order.

After replacement, perform the Tape Path Check referring to Section 7-4-6.

7-2-17. REPLACEMENT OF THE TENSION REGULATOR BAND ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
Cassette Tape
Dial Tension Gauge (Ref. No. J-6)
Tension Measurement Reel (30 mm dia.)
(Ref. No. J-7)

Removal:

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(2) Remove the S Reel Table Assembly referring to Removal of Section 7-2-13.

(3) Release the claw of the Band Arm and remove one side of the Tension Regulator Band Assembly.

(4) Release the claw from the Tension Regulator Arm Assembly and remove the Tension Regulator Band Assembly.

Installation:

(1) Replace the Tension Regulator Band Assembly with a new one.

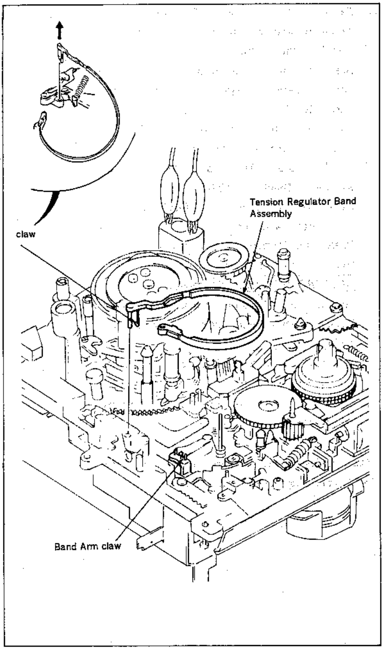
(2) Install the Tension Regulator Band Assembly with Removal Steps (3) and (4) in reverse order.

Note: Do not touch the inside of the band and bend it.

(3) Install the S Reel Table Assembly referring Installation of Section 7-2-13.

(4) After replacement, perform the FWD running more than two minutes and then perform the FWD Back Tension Adjustment referring to Section 7-3-5.

(5) Install the Cassette-up Compartment Assembly referring to Section 2-13.



7-2-18. REPLACEMENT OF THE L SLIDER ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
Sony Grease

Removal:

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(2) Remove the Fly Wheel referring to Section 7-2-1.

(3) Remove the Threading Ring Assembly referring to Section 7-2-4.

(4) Remove the Entrance Guide (P) Assembly referring to 7-2-10.

(5) Remove the Slant Guide Block Assembly referring to Section 7-2-11.

(6) Press the L-mode select button of the Mode Selector and set to the DRUM START mode.

(7) Remove the Slant Guide Drive Gear.

(8) Remove the two stopper washers from the L Slider Assembly.

(9) While pushing the projection of the RL Arm Assembly in the direction of the arrow, lift the right side of the L Slider Assembly and remove it from the shaft.

(10) Lift the right side of the L Slider Assembly as shown in figure 2 and remove the pin of the Tension Regulator Load Arm Assembly from the cam groove of the Tension Regulator Arm Assembly, and then remove the L Slider Assembly.

(11) Remove the stopper washer and remove the Tension Regulator Load Arm Assembly.

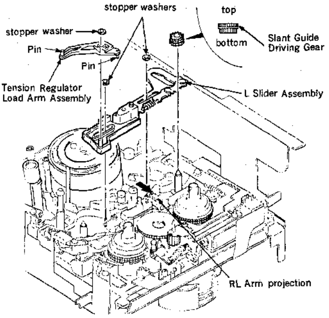

stopper washers
top
stopper washer
Pin
bottom
Slant Guide Driving Gear
Pin
Tension Regulator Load Arm Assembly
L Slider Assembly
RL Arm projection

Fig. 1

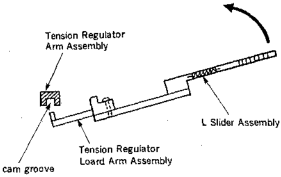

Tension Regulator Arm Assembly
L Slider Assembly
Tension Regulator Loard Arm Assembly
cam groove

Fig. 2

Installation:

(1) Replace the L Slider Assembly with a new one and smear Sony Grease to the three longitudinal holes as shown in figure 3.

(2) Assemble the parts with Removal Steps (8) to (11) in reverse order.

Note: When inserting the pin of the Tension Regulator Load Arm Assembly in the cam groove of the Tension Regulator Arm Assembly, insert the another pin into the groove of the M Slider.

(3) Press the L-mode select button of the Mode Selector and align the right edges of the L Slider Assembly and the Lock Slider M Assembly. (fig. 4)

(4) Engage the Slant Guide Drive Gear with L Slider Assembly so that the notch of the Drive Gear is 1 tooth away from the left and gear of the L Slider Assembly as shown in the figure 4.

(5) Assemble the parts with Removal Steps (1) to (5) in reverse order.

After replacement, perform the Tape Path Adjustment referring to Section 7-4.

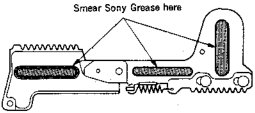

Smear Sony Grease here

Fig. 3

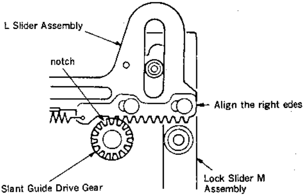

L Slider Assembly
notch
Align the right edes
Slant Guide Drive Gear
Lock Slider M Assembly

Fig. 4

7-2-19. REPLACEMENT OF THE L-SWITCH ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
Sony Oil
Sony Grease

Removal:

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(2) Remove the Fly Wheel referring to Section 7-2-1.

(3) Remove the Threading Ring Assembly referring to Section 7-2-4.

(4) Remove the Entrance Guide (P) Assembly referring to Section 7-2-10.

(5) Remove the Slant Guide Block Assembly referring to Section 7-2-11.

(6) Remove the L Slider Assembly referring to Section 7-2-18.

(7) Remove the Lock Slider Retainer.

(8) Remove the tension spring which is hooked to the Lock Slider A.

(9) Remove the fixing screw and remove the Lock Slider A.

(10) Remove the stop washer of the Drive Changer Assembly and remove the torsion spring.

(11) Remove the Drive Changer Assembly.

(12) Disconnect the connector (6P) on the L-switch Assembly.

(13) Remove the two fixing screws and remove the L-switch Assembly.

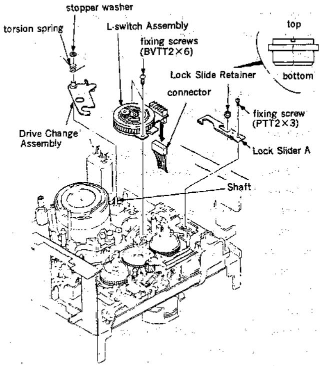

stopper washer
torsion spring
L-switch Assembly
fixing screws
(BVTT2×6)
top
bottom
Lock Slide Retainer
connector
fixing screw
(PTT2×3)
Drive Change
Assembly
Lock Slider A
Shaft

Fig. 1

Installation:

(1) Replace the L-switch Assembly with a new one and apply a half drop of oil on the Planetary Roller Shaft.

(2) Assemble the parts with Removal Steps (12) and (13) in reverse order.

(3) Press the L-mode select button (right or left) of the Mode Selector and check that the L-switch Assembly rotates.

(4) Apply a half drop of oil on the fixing shaft of the Drive Changer Assembly.

(5) Smear Sony Grease to the U groove of the Drive Changer Assembly as shown in figure 2.

(6) Assemble the parts with Removal Steps (10) and (11) in reverse order.

(7) Press the L-mode select button (right or left) of the Mode Selector and check that the L-switch Assembly rotates.

(8) Assemble the parts with Removal Steps (7) to (9) in reverse order.

(9) Press the L-mode select button (righ or left) of the Mode Selector so that the Planetary Roller Shaft is placed to the position shown in figure 3.

(10) Assemble the parts with Removal Steps (1) to (6) in reverse order.

After replacement, perform the Tape Path Adjustment referring to Section 7-4.

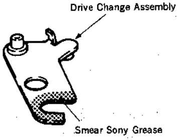

Drive Change Assembly
Smear Sony Grease

Fig. 2

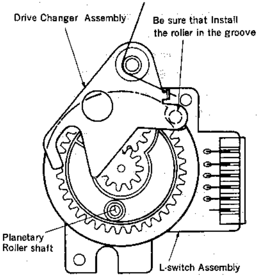

Drive Changer Assembly
Be sure that Install the roller in the groove
Planetary Roller shaft
L-switch Assembly

Fig. 3

7-2-20. REPLACEMENT OF THE PLUNGER SOLENOID

Removal:

(1) Open the MB-19 Board referring to Section 2-8.

(2) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(3) Remove the spring which is hooked to the Lock Slider M Assembly.

(4) Remove the two stopper washers.

(5) Remove the fixing screw and remove the Lock Slider M Assembly.

(6) Unsolder the three terminals of the Plunger Solenoid of the FP-206 Board.

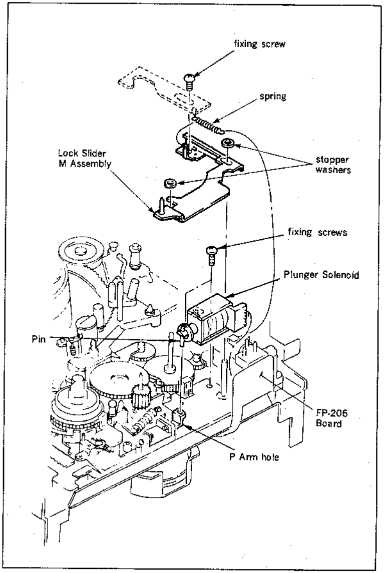
(7) Remove the two fixing screws and remove the Plunger Solenoid. (At this time, be careful not to damage the T Reel Assembly with a screwdriver, and do not touch it.)

Installation:

(1) Replace the Plunger Solenoid with a new one.

(2) Insert the pin of the Plunger Solenoid into the hole of the P Arm and install the new Plaunger Solenoid with the two fixing screws. (At this time, be careful not to damage the T Reel Assembly with a screwdriver and do not touch it.)

(3) Assemble the parts with Removal Steps (1) to (6) in reverse order.


fixing screw
spring
Lock Slider M Assembly
stopper washers
fixing screws
Plunger Solenoid
Pin
FP-206 Board
P Arm hole

7-2-21. REPLACEMENT OF THE M-SWITCH ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
Sony Oil

Removal:

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(2) Disconnect the connector (CN301) on the RS-31 Board.

(3) Remove the T Reel Table Assembly referring to Section 7-2-14.

(4) Remove the stopper washer and remove the Drive Gear B Assembly.

(5) Remove the LD-1 Board. (fig. 1)

(6) Remove the Lock Slider M Assembly referring to Removal Steps (3) to (5) of Section 7-2-20.

(7) Remove the tension spring and remove the B Release Arm Assembly.

(8) Check that the M-mode is put into $\boxed{\text{EJECT}}$ mode.

(9) Remove the stopper washer and remove the Mode Output Gear.

(10) Release the two claws of the Control Motor Cover and remove the Push Switch.

(11) Disconnect the connector (6P) on the M-switch Assembly.

(12) Remove the two fixing screws and remove the Control Motor Cover L.

(13) Remove the fixing screw and while lifiting up the M-switch Assembly, push the T.S Release Arm in the direction of the arrow A. Then push the T Main Brake Assembly in the direction of the arrow B and remove the M-switch Assembly.

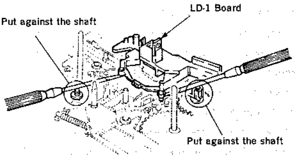

LD-1 Board
Put against the shaft
Put against the shaft

Fig. 1

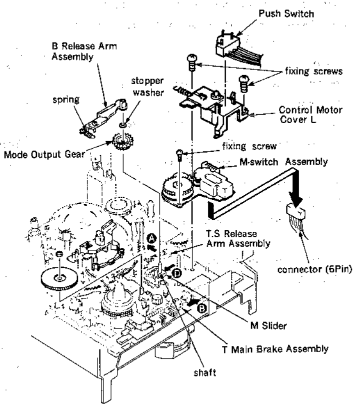

Push Switch
B Release Arm Assembly
fixing screws
stopper washer
spring
Control Motor Cover L
fixing screw
Mode Output Gear
M-switch Assembly
T.S Release Arm Assembly
A
D
B
connector (6Pin)
M Slider
T Main Brake Assembly
shaft

Fig. 2

How to removal the DC Motor:

(1) Unsolder the two terminals at the C points as shown in figure 3 and remove the DC Motor from the MS-4 Board. (fig. 3)

Installation:

(1) Replace the M-switch Assembly with a new one.

(2) Assemble the parts with Removal Steps (10) to (13) in reverse order.

(3) Check that the mechanical block is put into EJECT mode.

(4) Check that the M Slider moves fully in the direction of arrow D. (fig. 2)

(5) Apply a half drop of oil on the shaft of the Mode Output Gear. (fig. 2)

(6) Install the Mode Output Gear so that the center of the M-switch Assembly Gear and the two positioning holes are lined up. (fig. 4)

(7) Install the stopper washer to the shaft of the Mode Output Gear.

(8) Press the M-mode select button of the Mode Selector and set to the LOADING/UNLOADING mode.

(9) Assemble the parts with Removal Steps (1) to (7) in reverse order.

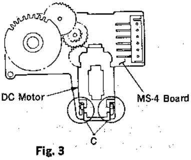

DC Motor
MS-4 Board
C

Fig. 3

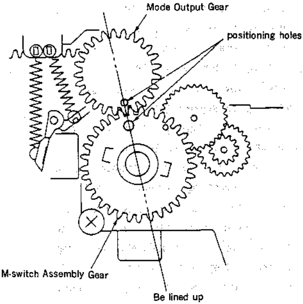

Mode Output Gear
positioning holes
M-switch Assembly Gear
Be lined up

Fig. 4

7-2-22. REPLACEMENT OF THE M SLIDER

Tools: Mode Selector (Ref. No. J-13)
Sony Oil
Sony Grease

Removal:

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(2) Remove the Threading Ring Assembly referring to Section 7-2-4.

(3) Remove the S Reel Table Assembly referring to Section 7-2-13.

(4) Remove the T Reel Table Assembly referring to Section 7-2-14.

(5) Remove the Pinch Press Arm Assembly referring to Section 7-2-15.

(6) Remove the Tension Regulator Arm Assembly referring to Section 7-2-16.

(7) Remove the Tension Regulator Band Assembly referring to Section 7-2-17.

(8) Remove the Drive Gear (B) Assembly, LD-1 Board, Lock Slider M Assembly and B Release Arm Assembly referring to Removal Steps (2) to (7) of Section 7-2-21.

(9) Remove the Tension Regulator Load Arm Assembly referring to Removal Step (11) of Section 7-2-18.

(10) Remove the tension spring which is hooked to the S Main Brake Assembly.

(11) Remove the two stopper washers and remove the S Main Brake Assembly and T Main Brake Assembly.

(12) Operate the Mode Selector and set the L-mode to LOADING TOP mode and the M-mode to LOADING/UNLOADING mode.

(13) Remove the fixing screw and remove the Drive Complete Assembly.

(14) Remove the Mode Output Gear referring to Removal Steps (8) and (9) of Section 4-21.

(15) Remove the two tension springs which are hooked to the REW Brake Assembly and B Release Slider.

(16) Remove the REW Brake Assembly and remove the REW Brake Spacer.

(17) Remove the stopper washer and remove the B Release Slider.

(18) Remove the stopper washer and remove the Ring Lock Spring and RL Arm.

(19) Move the M Slider to the right. At this time, leave about 5mm space between the fixing shaft and left edge of M Slider's longitudinal hole.

(20) Remove the E ring and remove the Pinch Press Lever Assembly.

(21) Remove the tension spring and remove the Hard Brake S.

(22) Remove the stopper washer and push the Mode Arm in the direction of the arrow. Lift up the left side of the M Slider to remove.

Installation:

(1) Replace the M Slider with a new one and smear grease. (fig. 2)

(2) Push the Mode Arm in the direction of the arrow. (fig. 1) While being careful to the positional relationship with other parts install the M Slider. Then install the stopper washer. (fig. 3)

(3) Install the Hard Brake S and hook the tension spring to it.

(4) Smear grease to the Pinch Press Lever Assembly. (fig. 4)

(5) Apply a half drop of oil to the part under the groove of Pinch Press Lever Assembly's shaft.

(6) Assemble the parts with Removal Steps (16) to (18) and (20) in reverse order.

(7) Hook the two tension springs to the REW Brake Assembly and B Release Slider.

Note: Hook the two tension springs as follows and be careful not to mix them.

- B Release Slider Spring: diameter 2 mm, wire diameter 0.18mm
- REW Brake Assembly Spring: diameter 1.6 mm, wire diameter 0.12mm

(8) Move the M Slider to the left fully.

(9) Press the M mode select button of the Mode Selector and set to EJECT mode.

(10) Install the Mode Output Gear referring to Installation Steps (5) to (7) in Section 7-2-21.

(11) Press the M mode select button of the Mode Selector and set to the LOADING/UNLOADING mode.

(12) Insert the horizontal shaft of the Drive Complete Assembly into the groove of the Upper and Lower Selection Arm and tighten the fixing screw.

(13) Assemble the parts with Removal Steps (1) to (11) in reverse order.

After replacement, perform the Tape Path Check referring to Section 7-4-6.

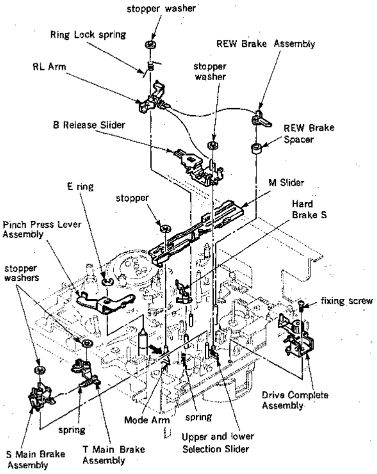

stopper washer
Ring Lock spring
REW Brake Assembly
RL Arm
stopper washer
B Release Slider
REW Brake Spacer
E ring
stopper
M Slider
Hard Brake S
Pinch Press Lever Assembly
stopper washers
fixing screw
Drive Complete Assembly
Mode Arm
spring
spring
Upper and lower Selection Slider
S Main Brake Assembly
T Main Brake Assembly

Fig. 1

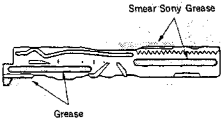

Smear Sony Grease
Grease

Fig. 2

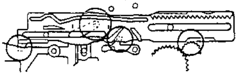


Fig. 3

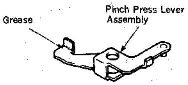

Grease
Pinch Press Lever Assembly

Fig. 4

7-2-23. INSTALLATION OF THE BLOCK PLATE ASSEMBLY

When removing the Block Plate Assembly, installing procedures are as follows:

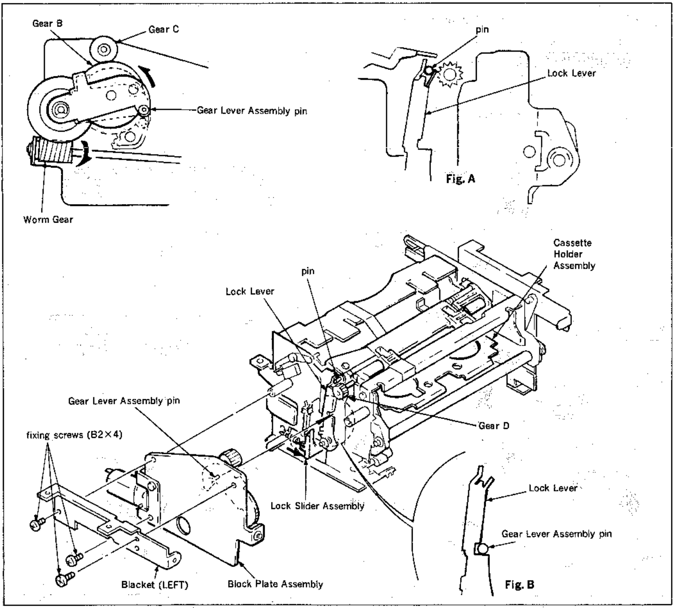
(1) Push the Lock Slider Assembly in the direction of the arrow and lift the Cassette Holder.

(2) Check that the positional relationship between the Lock Lever and pin is as shown in figure A.

(3) Turn the Worm Gear in the direction of the arrow and engage the Gear B and Gear C.

(4) While checking that positional relationship between the pin of the Gear Lever Assembly and Lock Lever is as shown in figure B, fix the Block Plate Assembly and Blacket (LEFT) with three fixing screws.

(5) Check that the Gear C and D are engaged.


Gear B
Gear C
Gear Lever Assembly pin
Worm Gear
pin
Lock Lever
Fig. A
Cassette Holder Assembly
pin
Lock Lever
Gear Lever Assembly pin
fixing screws (B2×4)
Gear D
Lock Slider Assembly
Lock Lever
Gear Lever Assembly pin
Blacket (LEFT)
Block Plate Assembly
Fig. B

7-2-24. PARALLELISM ADJUSTMENT OF THE CASSETTE HOLDER BLOCK

When the following trouble happen, perform this adjustment. When inserting or ejecting the cassette, it is caught in the Cassette Holder Assembly or Joint Assembly, etc., and does not move smoothly.

Adjustment procedure:

(1) Open the MB-19 Board referring to Section 2-8.

(2) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

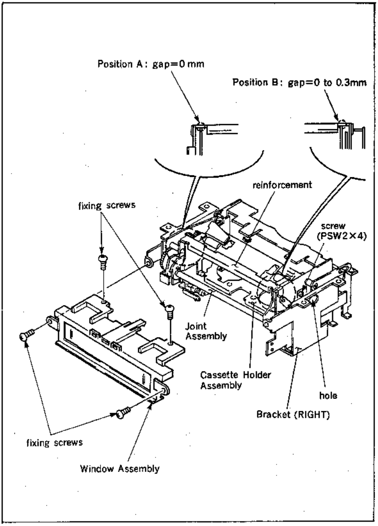
(3) Remove the four fixing screws and remove the Window Assembly.

(4) Loosen the screw (PSW2 X 4) from the hole of the Braket (RIGHT).

(5) Push the bottom of the Cassette Holder Assembly against the reinforcement, and adjust the position so that there is no clearance at points A and B.

(6) Tighten the screw (PSW2 X 4) and smear locking compound to it.

(7) Assemble the parts with Steps (1) to (3) in reverse order.


Position A: gap=0 mm
Position B: gap=0 to 0.3mm
reinforcement
fixing screws
screw (PSW2×4)
Joint Assembly
Cassette Holder Assembly
hole
Bracket (RIGHT)
fixing screws
Window Assembly

7-3. TORQUE AND BACK TENSION ADJUSTMENT

After removing the Mechanical Deck and Cassette-up Compartment from the unit referring to Section 2-5 and 2-13, perform these adjustments except for Section 7-3-4.

7-3-1. CHECK OF THE MAIN BRAKE TORQUE

1. S Main Brake Torque

Tools: Mode Selector (Ref. No. J-13)
Tension Measurement Reel
(Ref. No. J-8)
Dial Tension Gauge (Ref. No. J-6)

Mode: Press the M-mode select button of the Mode Selector and set to the FF/REW mode.

Check Procedure:

(1) Set the Tension Measurement Reel on the S Reel Table and put the Dial Tension Gauge at the end of the string.

(2) Pull out the Dial Tension Gauge in the direction of the arrows and check that those readings meet the required specifications as shown in figure 1 and 2.

Note: Both S Main Brake and S Soft Brake work in the FF/REW mode.

Adjustment Procedure:

(1) If the reading do not meet the required specification, replace the S Main Brake or S Reel Table Assembly.

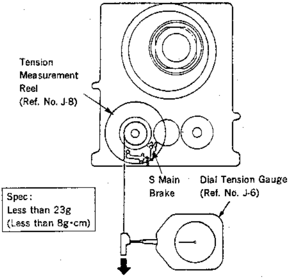

Tension
Measurement
Reel
(Ref. No. J-8)
S Main
Brake
Dial Tension Gauge
(Ref. No. J-6)
Spec:
Less than 23g
(Less than 8g·cm)

Fig. 1

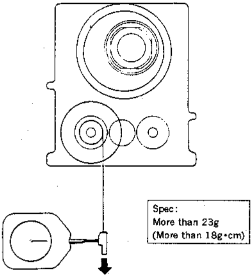

Spec:
More than 23g
(More than 18g·cm)

Fig. 2

2. T Main Brake Torque

Tools: Mode Selector (Ref. No. J-13)
Tension Measurement Reel
(Ref. No. J-8)
Dial Tension Gauge (Ref. No. J-6)

Mode: Press the M-mode select button of the Mode Selector and set to the FF/REW mode.

Check Procedure:

(1) Set the Tension Measurement Reel on the T Reel Table and put the Dial Tension Gauge at the end of the string.

(2) Pull out the Dial Tension Gauge in the direction of the arrows and check that these readings meet the required specifications as shown in figure 1 and 2.

Note: Both T Main Brake and REW Brake work in the FF/REW mode.

Adjustment Procedure:

(1) If the reading do not meet the required specification, replace T Main Brake or T Reel Table.

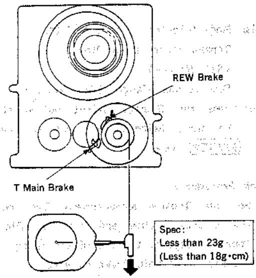

REW Brake
T Main Brake
Spec:
Less than 23g
(Less than 18g·cm)

Fig. 1

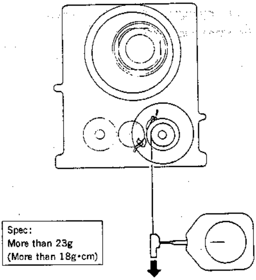

Spec:
More than 23g
(More than 18g·cm)

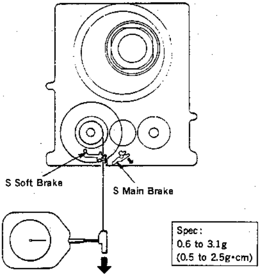
Fig. 2

7-3-2. CHECK OF THE SOFT BRAKE TORQUE

1. S Side Soft Brake Torque

Tools: Mode Selector (Ref. No. J-13)
Tension Measurement Reel
(Ref. No. J-8)
Dial Tension Gauge (Ref. No. J-6)

Mode: Press the M-mode select button of the Mode Selector and set to the FF/REW mode.



Check Procedure:

(1) Set the Tension Measurement Reel on the S Reel Table and put the Dial Tension Gauge at the end of the string.

(2) Release the S Main Brake by hand.

(3) While releasing the S Main Brake, pull out the Dial Tension Gauge in the direction of the arrow. Check that this reading meets the required specification.

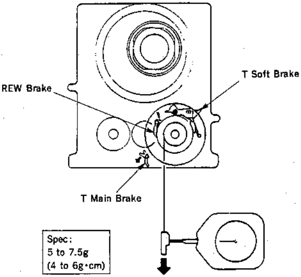
Adjustment Procedure:

(1) Adjust the strength of S Soft Brake Spring by streching or cutting.

2. T Side Soft Brake Torque

Tools: Mode Selector (Ref. No. J-13)
Tension Measurement Reel
(Ref. No. J-8)
Dial Tension Gauge (Ref. No. J-6)

Mode: Press the M-mode button of the Mode Selector and set to the $\boxed{\text{RVS}}$ mode.



Spec:
5 to 7.5g
(4 to 6g·cm)

Check Procedure:

(1) Set the Tension Measurement Reel on the T Reel Table and put the Dial Tension Gauge at the end of the string.

(2) Release the T Main Brake by hand.

(3) While releasing the S Main Brake, pull out the Dial Tension Gauge in the direction of the arrow. Check that this reading meets the required specification.

Note: Both T Soft Brake and REW Brake work in the RVS mode.

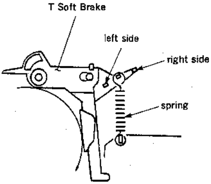
Adjustment Procedure:

(1) Change the position of the tension spring which is hooked to the T Soft Brake.

. more than the spec. : Hook the left side.

. less than the spec. : Hook the right side.

(2) If the reading do not meet the required specification with Step (1), replace the T Soft Brake or REW Brake, or both of them.



7-3-3. CHECK OF THE REW BRAKE TORQUE

Tools: Mode Selector (Ref. No. J-13)
Tension Measurement Reel
(Ref. No. J-8)
Dial Tension Gauge (Ref. No. J-6)

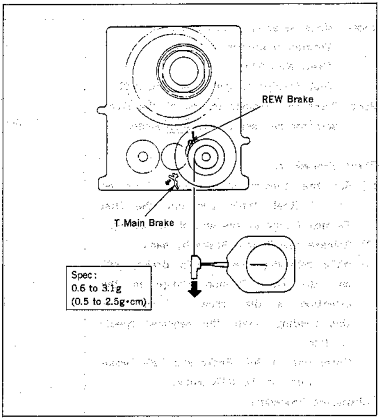
Mode: Press the M-mode select button of the Mode Selector and set to the FF/REW mode.

Check procedure:

(1) Set the Tension Measurement Reel on the T Reel Table and put the Dial Tension Gauge at the end of the string.
(2) Release the T Main Brake by hand.
(3) While the releasing the T Main Brake, pull out the Dial Tension Gauge in the direction of the arrow. Check that this reading meet the required specification.

Adjustment Procedure:

(1) Adjust the strength of the tension spring by streching or cutting, or replace the REW Brake with a new one.



7-3-4. CHECK BY THE FWD, RVS TAKE-UP TORQUE CASSETTE

Tool: FWD, RVS take-up torque cassette
(Ref. No. J-12)

Mode: PLAY mode

Check Procedure:

(1) Insert the FWD, RVS take-up torque cassette in the unit.
(2) Put the unit into the PLAY mode, check that the torque reading of the T Reel Table meets the required specification.

Spec. : 9.5 to 15.5 g.cm

(3) Put the unit into the PLAY mode and press the REW button. Immediately check that the torque reading of the S Reel Table meets the required specification.

Spec. : 17 to 23 g.cm

Adjustment procedure:

(1) If the readings do not meet the required specifications, replace each Reel Table Assembly.

7-3-5. FWD BACK TENSION ADJUSTMENT

Tools: Mode Selector (Ref. No. J-13)
Tension Measurement Reel
(Ref. No. J-7)
Dial Tension Gauge (Ref. No. J-6)

Mode: Press the L-mode select button of the Mode Selector and set to the LOADING END Press the M-mode select button and set to the FWD mode.

Check Procedure:

(1) Remove the Cassette-up Compartment referring to Section 2-13.

(2) Press the L-mode select button of the Mode Selector and set to the LOADING END mode. Press the M-mode select button and set to the FWD mode.

(3) Loosen the fixing screw and move the Band Adjustment Plate in the direction of the arrow A. Check the possible movement range θ of the No. 1 Guide.

(4) Tighten the fixing screw where the No. 1 Guide Cap is positioned at one-third of θ.

(5) Set the Tension Measurement Reel on the S Reel Table and trail the tape along the No. 1 Guide, No. 2 Guide, No. 3 Guide, IP Roller Guide and Drum.

(6) Put the Dial Tension Geauge at the end of the tape. Pull out the Dial Tension Gauge at a contact speed approx. 15cm/sec. in the direction of the arrow B. At this time, check that this reading meets the required specification.

Spec. : 12 to 14 g

Adjustment Procudure:

(1) If the reading do not meet the required specification, change the position of the tension spring which is hooked to the Tension Regulator Spring Hook Assembly.
. more than the Spec. :
the direction of the arrow C
. less than the Spec. :
the direction of the arrow D

NOTE:

When replacing the parts as follows, perform the FWD Back Tension Adjustment.

. Tension Regulator Band Assembly
. S Reel Table Assembly
. Entrance Guide (P) Assembly

When replacing these parts, perform the free running in the FWD mode for two minutes and then adjust the FWD Back Tension.

Adjustment Procudure:

(1) Install the Cassette-up Compartment Assembly with Removal Steps Section 2-13 in reverse order.

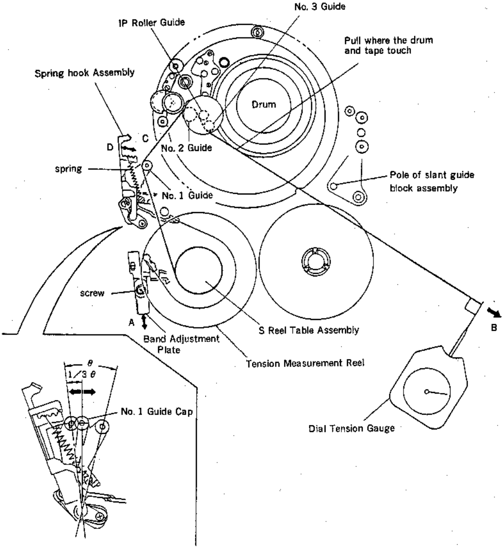
(2) Install the Mechanical Deck with Removal Steps Section 2-5 in reverse order.

(3) Insert the cassette tape in the unit and perform the FWD running for two minutes.

(4) Eject the cassette tape.

(5) Remove the Mechanical Deck from the unit referring to Section 2-5.

(6) Perform the FWD Back Tension Adjustment referring to Section 7-3-5.


No. 3 Guide
1P Roller Guide
Pull where the drum and tape touch
Spring hook Assembly
Drum
C
D
No. 2 Guide
spring
Pole of slant guide block assembly
No. 1 Guide
screw
A
B
S Reel Table Assembly
Band Adjustment Plate
Tension Measurement Reel
θ
1/3 θ
No. 1 Guide Cap
Dial Tension Gauge

7-4. TAPE PATH ADJUSTMENT

After check that the Electrical Adjustments (Sections 8) are completed, perform this adjustment.

Alignment Information

Track Shift Tool

The 8 mm Video System employs a high precision tracking ATF (Auto Track Finding) system which instantaneously controls the tape running speed with four kinds of pilot signals. In this way, the Tracking Adjustment Knob is unnecessary and it is possible to trace with accuracy. On the other hand, the adjustment of the Tape Path System was difficult in the ATF system. It was impossible to adjust perfectly because the ATF system automatically corrected even it small miss-tracking occurs. Then the Track Shift Tool (Ref. No. J-14) is used in the adjustment of Tape Path System. The Track Shift Tool can forcibly release the ATF system and can easly adjust the Tape Path System by setting the tracking amout (track shift) manually.

7-4-1. CONNECTION OF THE TRACK SHIFT TOOL

Use the connection cords (Ref. No. J-15 and J-16) for connection. Connect the Track Shift Tool and the unit as shown in figure 1.

. RF/SWP connector ...
  to CN004 on the FR-40 Board

. CTL connector ...
  to CN906 on the SE-10 Board

(Please refer to operation manual of the Track Shift Tool for details.)

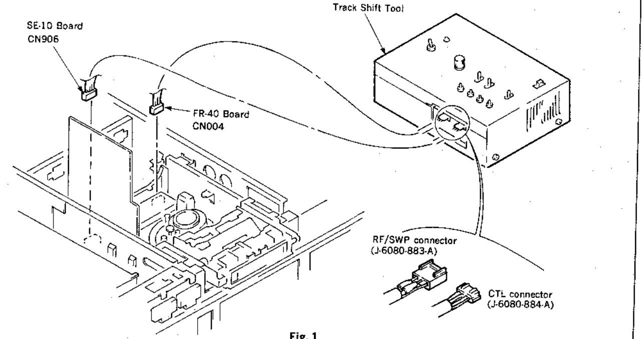
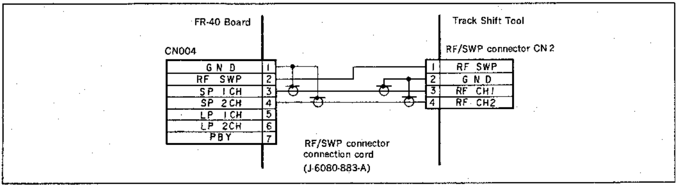


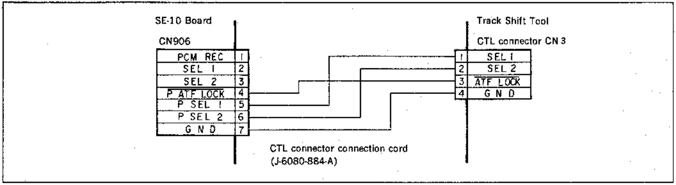
Fig. 1

[Designated Connecting Cord]

- RF/SWP connector connection cord
  (Part No. J-6080-883-A)


FR-40 Board
CN004
G N D 1
RF SWP 2
SP 1CH 3
SP 2CH 4
LP 1CH 5
LP 2CH 6
PBY 7
Track Shift Tool
RF/SWP connector CN 2
1 RF SWP
2 G N D
3 RF CH1
4 RF CH2
RF/SWP connector connection cord
(J-6080-883-A)

- CTL connector connection cord
  (Part No. J-6080-884-A)


SE-10 Board
CN906
PCM REC 1
SEL 1 2
SEL 2 3
P ATF LOCK 4
P SEL 1 5
P SEL 2 6
G N D 7
Track Shift Tool
CTL connector CN 3
1 SEL 1
2 SEL 2
3 ATF LOCK
4 G N D
CTL connector connection cord
(J-6080-884-A)

[Setting of the Switches]

SEL switch

When performing the track shift, set the switch to ON. When setting to OFF, the unit side controls.

PATTERN swich

Set to EV side.

ATF ADJ

Set to OFF side.

When adjusting EVO-9500, the other switches are not used.

7-4-2. PREPARATION FOR ADJUSTMENT

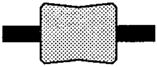
Tools: Track Shift Tool (Ref. No. J-14)
RF/SWP connector (Ref. No. J-15)
CTL connector (Ref. No. J-16)
Oscilloscope
Alignment tape for tracking
(WR5-1NP) (Ref. No. J-5)

(1) Clean the tape path surface (the individual tape guides, drum, capstan shaft and pinch roller).

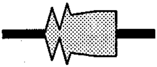
(2) Connection of the oscilloscope
1CH: CH2 checking pin of the Track Shift Tool
EXT TRIG:RF SWP checking pin of the Track Shift Tool

(3) Set the SEL switch of the Track Shift Tool to OFF and play back the alignment tape for tracking (WR5-1NP). Check that the RF waveforms of both entrance and exit sides are flat. (fig. 1 ⓐ) If the RF waveforms of both sides are not flat, adjust them as follows.

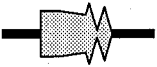
- In case of the RF waveform at the entrance side is not flat. (fig. 1 ⓑ)
  ... Perform entrance Side Adjustment referring to Section 7-4-4.
- In case of the RF wavefrom at the exit side is not flat. (fig. 1 ⓒ)
  ... Perform Exit Side Adjustment referring to Section 7-4-5.



ⓐNormal



ⓑEntrance side is defective.



ⓒExit Side is defective.

Fig. 1

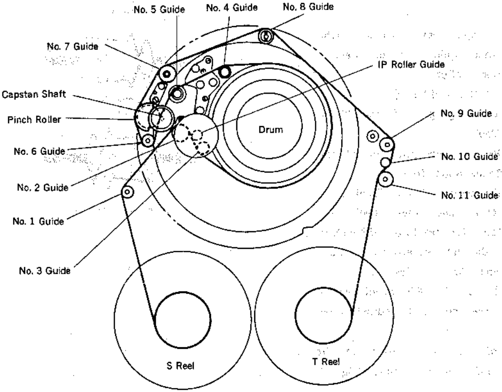
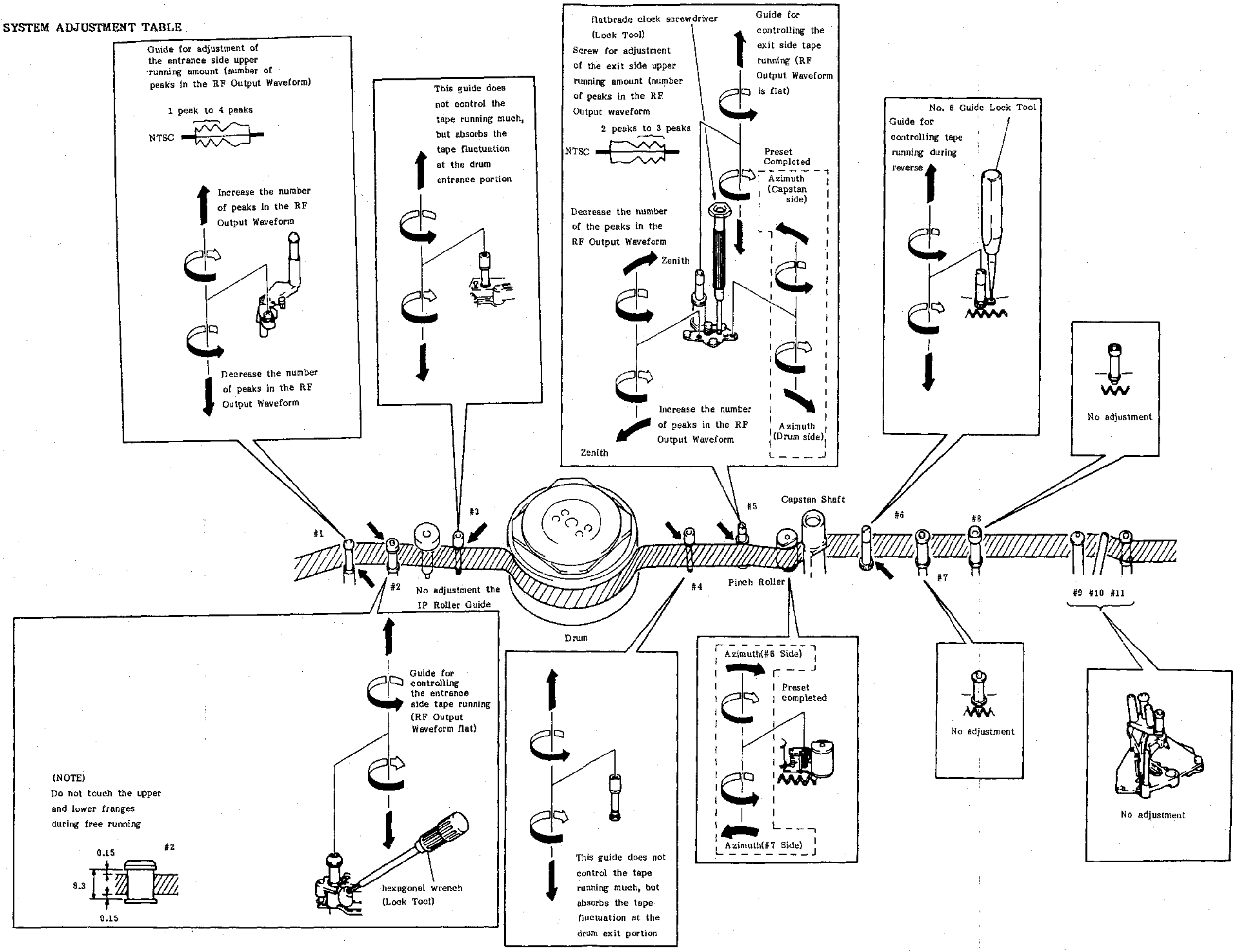

No. 5 Guide
No. 4 Guide
No. 8 Guide
No. 7 Guide
IP Roller Guide
Capstan Shaft
Pinch Roller
Drum
No. 9 Guide
No. 6 Guide
No. 10 Guide
No. 2 Guide
No. 11 Guide
No. 1 Guide
No. 3 Guide
S Reel
T Reel

Fig. 2 Tape Guide Arrangement Diagram

7-4-3. TAPE PATH SYSTEM ADJUSTMENT TABLE



Guide for adjustment of the entrance side upper running amount (number of peaks in the RF Output Waveform)

1 peak to 4 peaks

Increase the number of peaks in the RF Output Waveform

Decrease the number of peaks in the RF Output Waveform

This guide does not control the tape running much, but absorbs the tape fluctuation at the drum entrance portion

flatbrade clock screwdriver (Lock Tool)

Screw for adjustment of the exit side upper running amount (number of peaks in the RF Output waveform

2 peaks to 3 peaks

Guide for controlling the exit side tape running (RF Output Waveform is flat)

Decrease the number of the peaks in the RF Output Waveform

Increase the number of peaks in the RF Output Waveform

Preset Completed

No. 6 Guide Lock Tool

Guide for controlling tape running during reverse

No adjustment

No adjustment the IP Roller Guide

Guide for controlling the entrance side tape running (RF Output Waveform flat)

(NOTE)
Do not touch the upper and lower franges during free running

hexagonal wrench (Lock Tool)

This guide does not control the tape running much, but absorbs the tape fluctuation at the drum exit portion

Preset completed

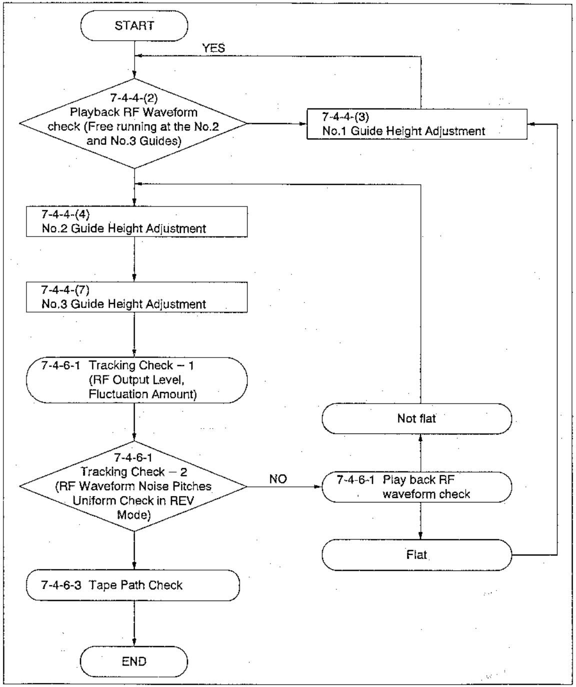
No adjustment

No adjustment

NTSC
NTSC
Zenith
Zenith
Azimuth (Capstan side)
Azimuth (Drum side)
#1
#2
#3
#4
#5
#6
#7
#8
#9 #10 #11
Capstan Shaft
Pinch Roller
Drum
Azimuth(#6 Side)
Azimuth(#7 Side)
#2
0.15
8.3
0.15

7-4-4. Tape Entrance Side Adjustment

Flow Chart of Adjustment


START
YES
7-4-4-(2)
Playback RF Waveform check (Free running at the No.2 and No.3 Guides)
7-4-4-(3)
No.1 Guide Height Adjustment
7-4-4-(4)
No.2 Guide Height Adjustment
7-4-4-(7)
No.3 Guide Height Adjustment
7-4-6-1 Tracking Check – 1
(RF Output Level, Fluctuation Amount)
Not flat
7-4-6-1
Tracking Check – 2
(RF Waveform Noise Pitches Uniform Check in REV Mode)
NO
7-4-6-1 Play back RF waveform check
Flat
7-4-6-3 Tape Path Check
END

Mode: Play back the alignment tape

Tools: Alignment tape for tracking (WR5-1NP) (Ref. No. J-5)
Oscilloscope
Track Shift Tool (Ref. No. J-14)
RF/SWP connector (Ref. No. J-15)
CTL connector (Ref. No. J-16)
Hexagonal screwdriver (across flat has 0.89 mm) (Ref. No J-17)
Small adjustment mirror (Ref. No. J-4)

Preparation:

(i) Remove the Top Plate referring to Section 2-1.

(ii) Open the MB-19 Board referring to Section 2-8.

(iii) Connect the Track Shift Tool and oscilloscope to the unit referring to Sections 7-4-1 and 7-4-2.

(iv) Play back the alignment tape.

Procedure:

(1) Remove the Fly Wheel referring to Section 7-2-1.

(2) Loosen the No. 2 Guide Lock Screw and turn the No. 2 and No. 3 Guides counterclockwise to free the tape path at the entrance side. (fig. 1 and 2)

Note: The space between upper and lower flanges of the No. 2 Guide is narrow. Therefore, then check that the tape is not touch the upper and lower flanges. If loosen the No. 2 Guide too much, the tape touches the lower flange and the RF waveform at the entrance side exceeds the original free waveform.

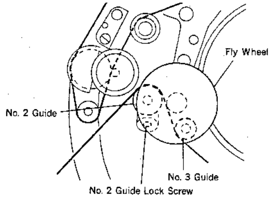

Fly Wheel
No. 2 Guide
No. 3 Guide
No. 2 Guide Lock Screw

Fig. 1

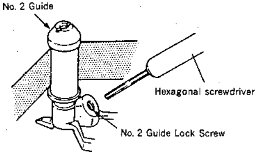

No. 2 Guide
Hexagonal screwdriver
No. 2 Guide Lock Screw

Fig. 2

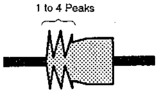


Fig. 3

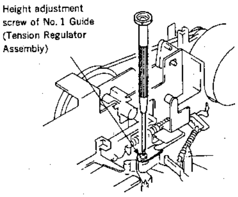

Height adjustment screw of No. 1 Guide (Tension Regulator Assembly)

Fig. 4

(3) Check that the RF waveform at the entrance side has 1 to 4 peaks in this condition. If not, adjust as follows. (fig. 3)

- less than 1 peak
  Turn and adjust the height adjustment screw of the No. 1 Guide (Tension Regulator Arm Assembly) clockwise 90 degrees step. (fig. 4)
- more than 4 peaks
  Turn and adjust the height adjustment screw counterclockwise 90 degrees step. (fig. 4)

(4) Turn slowly the No. 2 Guide clockwise so that flatten the waveform at the entrance side. (fig. 5)

Note: At this time, do not turn the No. 2 Guide too much.

(5) Set the SEL switch of the Track Shift Tool to ON. Turn the Track Shift Knob and set the amplitude of the RF waveform to two-third position. (fig. 6)

(6) Turn the No. 2 Guide and raise the entrance side waveform sightly. (fig. 7)

(7) Flatten the waveform with the No. 3 Guide. (fig. 8)

(8) Tighten the lock screw of the No. 2 Guide. (fig. 2)

(9) Smear locking compound to the No. 1 Guide Height Adjustment Screw and top porsion of the No. 3 Guide.

(10) Install the Fly Wheel referring to Section 7-2-1.

Note: After adjustment, perform Check After Adjustment referring to Section 7-4-6.

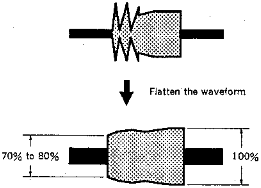


Fig. 5

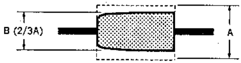
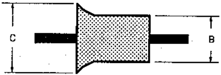


Fig. 6



C=1.15B to 1.25B

Fig. 7

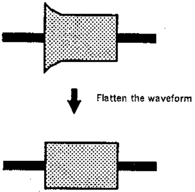
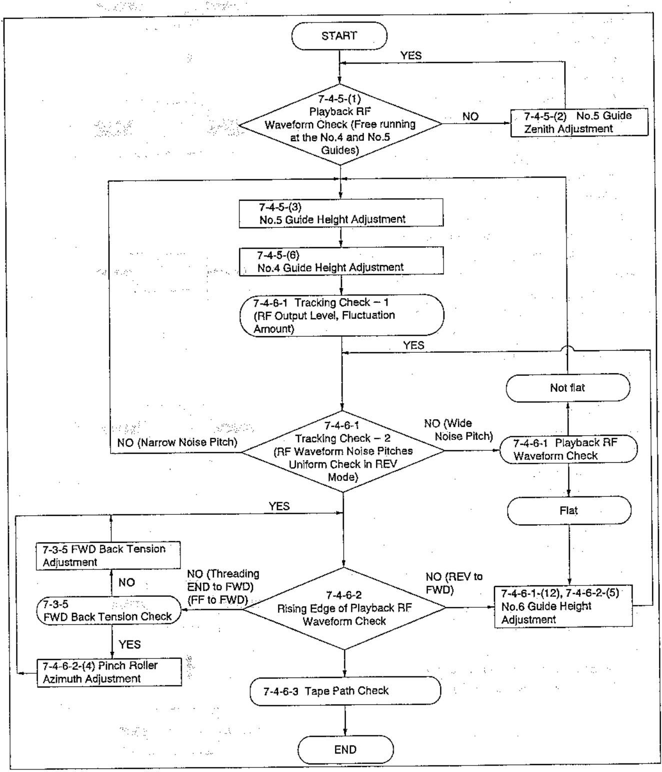


Fig. 8

7-4-5. Tape Exit Side Adjustment

Flow Chart of Adjustment


START
YES
7-4-5-(1) Playback RF Waveform Check (Free running at the No.4 and No.5 Guides)
NO
7-4-5-(2) No.5 Guide Zenith Adjustment
7-4-5-(3) No.5 Guide Height Adjustment
7-4-5-(6) No.4 Guide Height Adjustment
7-4-6-1 Tracking Check – 1 (RF Output Level, Fluctuation Amount)
YES
Not flat
7-4-6-1 Tracking Check – 2 (RF Waveform Noise Pitches Uniform Check in REV Mode)
NO (Narrow Noise Pitch)
NO (Wide Noise Pitch)
7-4-6-1 Playback RF Waveform Check
Flat
YES
7-3-5 FWD Back Tension Adjustment
NO
NO (Threading END to FWD) (FF to FWD)
7-3-5 FWD Back Tension Check
7-4-6-2 Rising Edge of Playback RF Waveform Check
NO (REV to FWD)
7-4-6-1-(12), 7-4-6-2-(5) No.6 Guide Height Adjustment
YES
7-4-6-2-(4) Pinch Roller Azimuth Adjustment
7-4-6-3 Tape Path Check
END

Mode: Play back the alignment tape

Tools: Alignment tape for tracking
(WR5-1NP) (Ref. No. J-5)
Oscilloscope
Track Shift Tool (Ref. No. J-14)
RF/SWP connector (Ref. No. J-15)
CTL connector (Ref. No. J-16)
Hexagonal screwdreiver (across flat has 0.89 mm) (Ref. No. J-17)
Small adjustment mirror (Ref. No. J-4)

Preparation:

(i) Remove the Top Plate referring to Section 2-1.

(ii) Open the MB-19 board referring to Section 2-8.

(iii) Connect the Track Shift Tool and oscilloscope to the unit referring to Sections 7-4-1 and 7-4-2.

(iv) Play back the alignment tape.

Procedure:

(1) Turn the No. 4 and No. 5 Guides counterclockwise to free the tape path at the exit side. (fig. 1)

Note: If the No. 5 Guide nut is not loosen because of locking compound, dissolve locking compound with alcohol. Check that the tape does not touch the lower flange of the No. 5 Guide in free running.

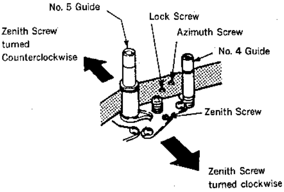

No. 5 Guide
Lock Screw
Zenith Screw turned Counterclockwise
Azimuth Screw
No. 4 Guide
Zenith Screw
Zenith Screw turned clockwise

Fig. 1

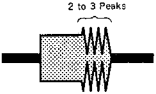


Fig. 2

(2) Check that the RF waveform at the exit side has 2 to 3 peaks in this condition. If not, adjust as follows. (fig. 2)

- Turn and loosen the lock screw counterclockwise.
- less than 2 peaks
  Turn and adjust slowly the zenith screw clockwise 45 degrees step.
- more than 3 peaks
  Turn and adjust slowly the zenith screw of the No. 5 Guide counterclockwise 45 degrees step.

After adjustment, tighten the lock screw clockwise.(fig. 1)

Note: If tighten the lock screw too strongly, the waveform will change. Tighten suitably the lock screw. Never turn the azimuth screw of the No. 5 Guide.

(3) Turn the No. 5 Guide clockwise and flatten the RF waveform at the exit side. (fig. 3)

Note: At this time, the waveform reaction is slow against the nut rotation. After checking that the waveform variation is stabilized, turn the nut more.

(4) Set the SEL switch of the Track Shift Tool to ON. Turn the Track Shift Knob and set the amplitude of the RF waveform to two-third position. (fig. 4)

(5) Turn the No. 5 Guide and raise the exit side waveform sightly. (fig. 5)

(6) Turn the No. 4 Guide and flatten the waveform. (fig. 6)

(7) Smear locking compound to the lock screw, zenith screw and top portions of the No. 4 Guide and No. 5 Guide.

Note: After adjustment, perform Check After Adjustment referring to Section 7-4-6.

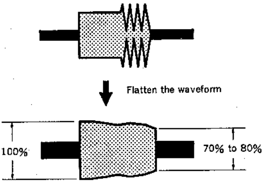


Fig. 3

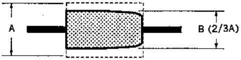
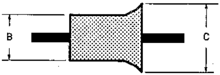


Fig. 4



C=1.15B to 1.25B

Fig. 5

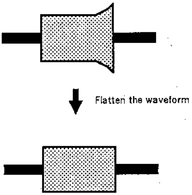


Fig. 6

7-4-5. CHECK AFTER ADJUSTMENT

Tool: No. 6 Guide Lock Screwdriver (Ref. No. J-10)
Alignment tape for tracking (WR5-1NP) (Ref. No. J-5)

1. Video Tracking Check

(1) Play back the alignment tape for tracking.

(2) Set the SEL switch of the Track Shift Tool to ON. Turn the Track Shift Knob and set the amplitude of the RF waveform to two-third position. (fig. 1)

(3) In this time, check that the amplitude minimum value (E MIN) of the RF waveform is more than 75% of maximum value (E MAX). (fig. 2)

(4) In this time, check that the fluctuation amount of th RF waveform at entrance and exit sides meet the reguired specification as shown in figure. 3.

(5) Set the SEL switch of the Track Shift Tool to OFF.

(6) Set to the REV mode and check that the noise pitches of the waveform are uniform. (fig. 4) If not, adjust as follows.

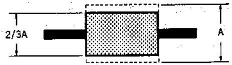


Fig. 1

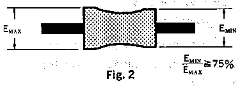

E_{MAX}
E_{MIN}
$\frac{E_{MIN}}{E_{MAX}} \geqq 75\%$

Fig. 2

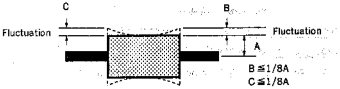

C
B
Fluctuation
Fluctuation
A
B ≦ 1/8A
C ≦ 1/8A

Fig. 3

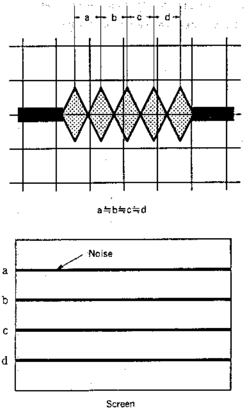

a
b
c
d
a≒b≒c≒d
Noise
a
b
c
d
Screen

Fig. 4

When the Noise pitch is narrow at the entrance side (upper of screen). (fig. 5)

(7) Check that the RF waveform is flat in the PLAY mode.

(8) Perform the height adjustment of the No. 1 Guide referring to Section 7-4-4.

Note: After adjustment, perform the Tracking Check referring to Section 7-4-6-1.

When the RF waveform is not flat.

(9) Perform the height adjustment of the No. 2 and No. 3 Guides referring to Section 7-4-4.

Note: After adjustment, perform the Tracking Check referring to Section 7-4-6-1.

When the noise pitch is narrow at the exit side (lower of screen). (fig. 6)

(10) Set to PLAY mode and perform the height adjustment of the No. 4 and No. 5 Guides referring to Section 7-4-5. After adjustment, perform the Tracking Check referring to Section 7-4-6-1 and check that it meet the required specification.

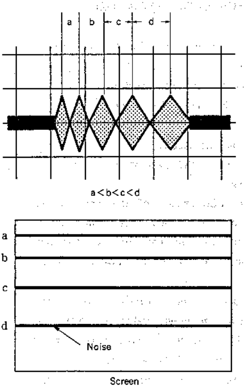


Fig. 5

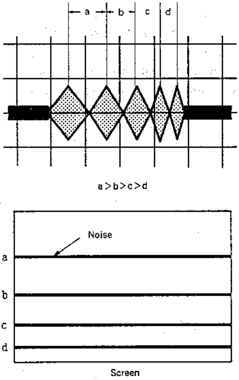


Fig. 6

When the noise pitch is wide at the exit side (lower of screen). (fig. 7)

(11) Set to PLAY mode and check that the RF waveform is flat.

(12) Turn and loosen the Guide Lower Gear counterclockwise with the No. 6 guide lock tool. (fig. 8)

(13) Turn the No. 6 Guide and perform the height adjustment.

Note: At this time, if the No. 6 Guide is raised too much, the wrinkles may occur between the Capstan Shaft and No. 5 Guide (A portion). Check that the wrinkes are not occur. (fig. 9)

(14) Turn and *lock the Guide Lower Gear clockwise with the NO. 6 guide lock tool.

*Touch the Guide Lower Gear against the lower flange of the No. 6 Guide and turn it more about 10 degrees.

Note: After adjustment, perform the Tracking Check referring to Section 7-4-6-1.

When the waveform is not flat.

(15) Perform the height adjustment of the No. 4 and No. 5 Guides referring to Section 7-4-5.

Note: After adjustment, perform the Tracking Check referring to Section 7-4-6-1.

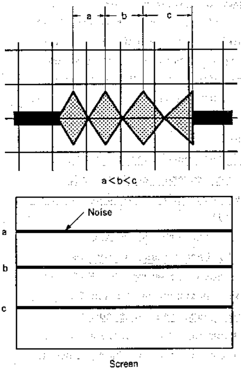


Fig. 7

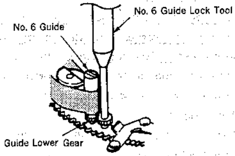


Fig. 8

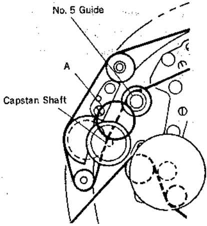


Fig. 9

2. Rising Edge of Waveform Check

(1) Check that the RF waveform rises horizontally (flat waveform) in playback after threading is completed, playback after CUE/REV or FF mode. If the RF waveform do not rise horizontally (flat waveform), adjust as follows.

In case of the noise occurs at the exit side (lower of screen) at the rising edge of the playback, after threading is completed. (fig. 11)

(2) Check that the FWD Back Tension.

When the FWD Back Tension is too low.

(3) Adjust again referring to FWD Back Tension Adjustment of Section 7-3-5.

When the FWD Back Tension is normal.

(4) While adjusting the waveform at the rising edge of the playback, turn the azimuth screw of the Pinch Roller clockwise about 5 degrees step. Then check the rising edge of waveform.

In case of the noise occurs at the exit side (lower of screen) at the rising edge of the playback after REV mode. (fig. 11)

(5) Turn and loosen the Guide Lower Gear counterclockwise with No. 6 guide lock tool. (fig. 8)

(6) Turn the No. 6 Guide and perform the height adjustment.

Note: At this time, if the No. 6 Guide is raised too much, the wrinkles may occur between the Capstan Shaft and No. 5 Guide(A portion). Check that the wrinkes are not occur. (fig. 9)

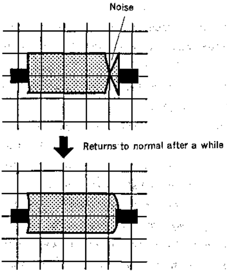


Fig. 11

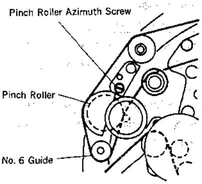


Fig. 12

In case of the noise occurs at the exit side (lower of screen) at the start of the playback after FF mode. (fig. 11)

(7) Check that the FWD Back Tension.

When the FWD Back Tension is too low.

(8) Adjust again referring to FWD Back Tension Adjustment of Section 7-3-5.

When the FWD Back Tension is normal.

(9) While adjusting the waveform at the rising edge of the playback, turn the azimuth screw of the Pinch Roller clockwise about 5 degrees step. Then check the rising edge of waveform. (fig. 12)

Note: After adjustment, be sure to check that waveform again at the rising edge of the playback after threading is completed.

3. Tape Running Check

Check the tape running at the flange of the Guides (shown by arrows) in PLAY and REV modes.

No. 1 Guide
No. 2 Guide
No. 5 Guide ... Tape runs in contact with upper or lower flange. If tape curl exist, less than 0.3mm at the tape curl is acceptable.

No. 3 Guide
No. 6 Guide ... Tape runs in contact with upper or lower flange without curl.

No. 4 Guide ... Tape runs in contact with upper flange. If tape curl exists, less than 0.5mm of tape curl is acceptable.

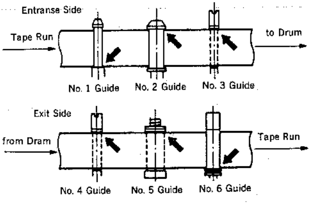

Entranse Side
Tape Run
to Drum
No. 1 Guide
No. 2 Guide
No. 3 Guide
Exit Side
from Dram
Tape Run
No. 4 Guide
No. 5 Guide
No. 6 Guide

Fig. 13

SECTION 8
ELECTRICAL ADJUSTMENT

8-1. POWER SUPPLY ALIGNMENT

8-1-1. Equipment Required

- Digital voltmeter

8-1-2. +5V Adjustment

Machine condition for adjustment	Specifications	Adjustments
• STANDBY mode	CN101-2/IF-20 (J-1) 5.4 ± 0.1Vdc	⊘ RV203/ POWER BLOCK (B-1)

8-1-3. REG +5V Adjustment

Machine condition for adjustment	Specifications	Adjustments
• E-E mode	CN101-5/IF-20 (J-1) 5.2 ± 0.1Vdc	⊘ RV202/ POWER BLOCK (D-1)

8-1-4. REG +9V Adjustment

Machine condition for adjustment	Specifications	Adjustments
• E-E mode	CN101-10/IF-20 (J-1) 9.0 ± 0.1Vdc	⊘ RV201/ POWER BLOCK (D-1)

8-2. SERVO SYSTEM ALIGNMENT

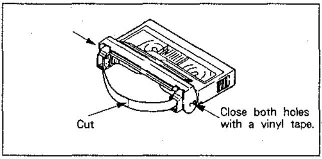
8-2-1. Equipment Required

- Oscilloscope
- Frequency counter
- Digital voltmeter
- Alignment tape

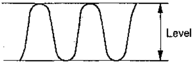
Name (Part No.)	REC mode	Tape Type	Tape Speed	Contents	
				Video Area	PCM Area
SP operation check WR5-8NSE (8-967-995-43)	Hi8	ME	SP	VIDEO SIGNAL Color-bar 4 min. Monoscope 4 min. AUDIO SIGNAL (AFM) 400 Hz 60% mod.	AUDIO SIGNAL (PCM) 400 Hz 20 min.
LP operation check WR5-8NLE (8-967-995-52)	Hi8	ME	LP	VIDEO SIGNAL Color-bar 4 min. Monoscope 4 min. AUDIO SIGNAL (AFM) 400 Hz 60% mod.	AUDIO SIGNAL (PCM) 400 Hz 40 min.

- Empty cassette (See below.)

1. Draw out a tape and cut it.
2. Cover two holes on both side of the cassette with a vinyl tape.

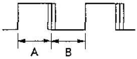


8-2-2. DS Clock Check

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • STOP mode	TP107/SE-10 (C-5)  Level=more than 2.5 Vp-p Frequency=3578756 ± 300 Hz	

8-2-3. Capstan FG Duty Adjustment

Remove the Bottom Plate and open the HK-4 Board for this adjustment. If it does not meet the specification, remove the mechanical deck and adjust again.

Machine condition for adjustment	Specifications	Adjustments
• Connect each TP001 AND TP002 on the SE-10 board to ground with jumper wires. • Insert the empty cassette tape and put the machine into the play back mode. • After adjustment, remove the jumper wires.	TP105/SE-10 (D-4)  A ≒ B	⊘ RV801/MD-23 (D-3)

8-2-4. Reel FG Adjustment

Remove the mechanical deck for this adjustment.
Connect only CN907 on the SE-10 Board.

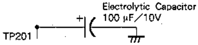
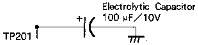
Machine condition for adjustment	Specifications	Adjustments
• Play back the alignment tape WR5-8NLE.	TP901/MD-23 (G-1) 21 ± 1 Hz	⊘ RV901/MD-23 (G-1)
• Perform confirmation while playing back the alignment tape WR5-8NLE.	TP902/MD-23 (E-1) 1.0 through 1.4Vdc	
• Perform confirmation while playing back the alignment tape WR5-8NLE with CUE (× 9) mode. CUE (× 9): While pressing the PB button, press the FF button on the MB-19 Board.	TP901/MD-23 (G-1) 37 through 50 Hz TP902/MD-23 (E-1) 1.4 through 1.9Vdc	

Note: After adjustment, install the mechanical deck.

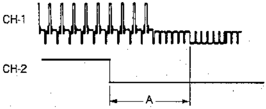
8-2-5. Drum Free Speed Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: No signal • Use the Hi8 MP tape. • REC mode	TP101/SE-10 (D-6) 1.9 ± 0.1Vdc	⊘ RV102/SE-10 (E-6)

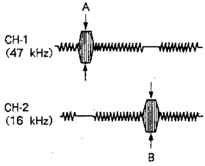
8-2-6. Capstan Free Speed Adjustment

Machine condition for adjustment	Specifications	Adjustments
Step 1 (SP mode) • Connect TP201/SE-10 (H-3) to ground with electrolytic capacitor (100 µF/10V) during STOP mode.  • Connect TP002/SE-10 (D-6) to ground with jumper wire during STOP mode. • Play back the alignment tape WR5-8NSE. • After adjustment, remove the jumper wire and capacitor.	TP105/SE-10 (D-4) 960 ± 1 Hz	⊘ RV106/SE-10 (D-5)
Step 2 (LP mode) • Connect TP201/SE-10 (H-3) to ground with electrolytic capacitor (100 µF/10V) during STOP mode.  • Connect TP002/SE-10 (D-6) to ground with jumper wire during STOP mode. • Connect pin 4 of CN901/SE-10 (A-5) to ground with jumper wire during STOP mode. • Play back the alignment tape WR5-8NSE. • After adjustment, remove the jumper wire and capacitor.	TP105/SE-10 (D-4) 480 ± 1 Hz	⊘ RV105/SE-10 (D-5)

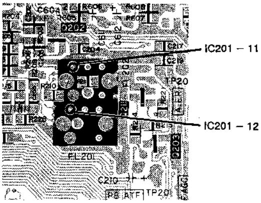
8-2-7. Switching Position Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the color bar signal portion of the alignment tape WR5-8NSE.	CH-1: TP701/HK-4(H-2) CH-2: TP103/SE-10 (F-3)  A=6.5 ± 0.3H	⊘ RV101/SE-10 (C-6) Trigger: TP301/SE-10 (F-3)

8-2-8. ATF BPF Balance Adjustment

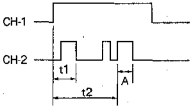
Machine condition for adjustment	Specifications	Adjustments
• Connect TP208/SE-10 (H-3) to ground with jumper wire. • VIDEO IN : color-bar signal • Preform the self-recording /play back with a Hi8 ME tape. • After adjustment, remove the jumper wire.	CH-1: IC201-12/SE-10 (G-4) CH-2: IC201-11/SE-10 (G-4)  B=A	⊘ RV201/SE-10 (G-4)

Note: It is difficult to connect the IC201-11 and IC201-12.
The substitutive positions of these pins described below.

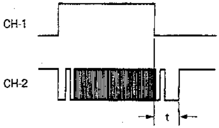


∗ Open the SE-10 board.

8-2-9. STILL Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN : color-bar signal • Perform the self-recording/play back with a Hi8 ME tape. • Put the unit into the PAUSE mode and measure the pulse width of A portion. • Advance one frame and perform adjustment if the pulse width of A is narrow. If it is wide, advance the frame for one more frame and perform adjustment by observing narrower pulse width.	CH-1: TP103/SE-10 (F-3) CH-2: TP204/SE-10 (F-5)  t1=4.0 ± 0.1msec t2=11.4 ± 0.1msec	t1 ⊘ RV203/SE-10 (H-3) t2 ⊘ RV204/SE-10 (H-3) Trigger: TP103/SE-10 (F-3)

8-2-10. SP Slow Adjustment

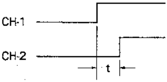
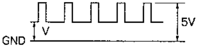
Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN : color-bar signal • Using P6-120MPN tape, perform the short recording of the color-bar signal at the end of tape. • Connect TP001/SE-10 (C-2) to ground with jumper wire. • Playback the recorded portion with SLOW (× 1/5 speed) mode. • When the noise appears on the monitor screen, adjust RV104 temporarily. • When the noise appears on the monitor screen, adjust RV104 so that noise at the bottom of the screen disappears. • After adjustment, remove the jumper wire.	CH-1: TP103/SE-10 (F-3) CH-2: TP105/SE-10 (D-4)  t=minimum	⊘ RV304/SE-10 (E-2) ⊘ RV104/SE-10 (D-5) Trigger: TP302/SE-10 (F-3)

8-2-11. LP Slow Adjustment

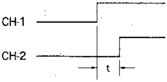
Note: This adjustment should be performed after completion of "8-2-10. SP SLOW ADJUSTMENT".

Machine condition for adjustment	Specifications	Adjustments
• Connect pin 4 of CN901/SE-10 (A-5) to ground with jumper wire. • VIDEO IN : color-bar signal • Perform the a short recording of the color-bar signal at the end of P6-120N tape. • Connect TP001/SE-10 (C-2) to ground with jumper wire. • Playback the recorded portion with SLOW (× 1/5 speed). • After adjustment, remove jumper wires.	Adjust RV103 so that the noise at the bottom of the screen disappears.	⊘ RV103/SE-10 (E-5)

8-2-12. SP Slow fH Adjustment

Machine condition for adjustment	Specifications	Adjustments
Step 1 • Perform the short recording of the color-bar signal with a Hi8 ME tape. Play back the recorded portion with SLOW (× 1/30 speed). SLOW (× 1/30 speed): Short-circuit pin 5 of CN901/SE-10 (A-5) to ground for one second with 6.2kΩ resistor.	CH-1: TP103/SE-10 (F-3) CH-2: TP102/SE-10 (D-5)  t=580 ± 10 µsec	⊘RV301/SE-10 (F-1)
Step 2 • Perform the short recording of the color-bar signal with a Hi8 ME tape. Play back the recorded portion with SLOW (× 1/5 speed). SLOW (× 1/5 speed): Press SLOW button or short-circuit pin 5 of CN901/SE-10 (A-5) to ground for one second with 3.6kΩ resistor.	TP301/SE-10 (E-2)  V=3.9 ± 0.1Vdc	⊘RV303/SE-10 (E-1)

8-2-13. LP Slow fH Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Connect pin 4 of CN901/SE-10 (A-5) to GND with jumper wire. (LP mode) • Perform the short recording of the color-bar signal with a Hi8 ME tape. Play back the recorded portion with SLOW (× 1/5 speed).	CH-1: TP103/SE-10 (F-3) CH-2: TP102/SE-10 (D-5)  t=580 ± 10 µsec	⊘RV302/SE-10 (F-2)

8-2-14. Slow Tracking Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the color-bar signal portion of alignment tape WR5-8NSE with SLOW mode. • Turn RV001/FB-169 (J-3) and stops where at the center click position.	W002-10/FB-169 (E-3) 2.5V ± 0.1 Vdc After the adjustment, turn RV001/FB-169 (J-3) and confirm the voltage whether varies.	⊘ RV002/FB-169 (J-3)

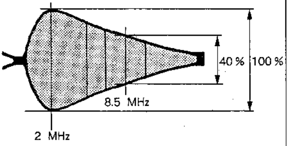
8-3. VIDEO SIGNAL SYSTEM ALIGNMENT

8-3-1. Equipment Required

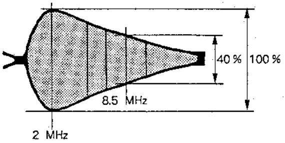
- Oscilloscope
- Frequency counter
- Test signal generator
- Vectorscope
- Vectorscope
- Sweep generator

Name (Part No.)	REC mode	Tape Type	Tape Speed	Contents	
				Video Area	PCM Area
Video freq. resp. WR5-7NE (8-967-995-13)	Hi8	ME	SP	RF sweep 0 to 15 MHz Marker: 2.0 MHz 4.5 MHz 7.0 MHz 8.5 MHz 10.0 MHz	
SP operation check WR5-5NSP (8-967-995-42)	STD	MP	SP	VIDEO SIGNAL Color-bar 4 min. Monoscope 4 min. AUDIO SIGNAL (AFM) 400 Hz 60% mod.	AUDIO SIGNAL (PCM) Monoscope Section 20 Hz 20 sec. 400 Hz 20 sec. 14 kHz 20 sec. Color-Bar Section 1 kHz 4 min.
SP operation check WR5-8NSE (8-967-995-43)	Hi8	ME	SP		AUDIO SIGNAL (PCM) 400 Hz 20 min.
LP operation check WR5-8NLE (8-967-995-52)	Hi8	ME	LP	VIDEO SIGNAL Color-bar 4 min. Monoscope 4 min. AUDIO SIGNAL (AFM) 400 Hz 60% mod.	

8-3-2. SP PB Frequency Response Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the alignment tape WR5-7NE.	CN004-3/FR-40 (A-2)  8.5 MHz=40% (in reference to 2 MHz)	⊘ RV004/RP-73 (SP) Trigger: CN004-2/FR-40 (A-2)
	CN004-4/FR-40 (A-2) 8.5 MHz=40% (in reference to 2 MHz)	⊘ RV003/RP-73 (SP) Trigger: CN004-2/FR-40 (A-2)

8-3-3. LP PB Frequency Response Adjustment

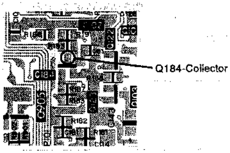
Machine condition for adjustment	Specifications	Adjustments
• Connect TP104/SE-10 (D-4) to ground with jumper wire. • Play back the alignment tape WR5-7NE. • After adjustment, remove a jumper wire.	CN004-5/FR-40 (A-2)  8.5 MHz=40% (in reference to 2 MHz)	⊘ RV004/RP-73 (LP) Trigger: CN004-2/FR-40 (A-2)
	CN004-6/FR-40 (A-2) 8.5 MHz=40% (in reference to 2 MHz)	⊘ RV003/RP-73 (LP) Trigger: CN004-2/FR-40 (A-2)

8-3-4. Flying Erase Confirmation

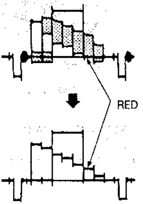
Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN : color-bar signal • Use a Hi8 ME tape. • REC mode	TP041/FR-40 (C-1) 7.9 ± 0.5 MHz	

8-3-5. SubCarrier Frequency Adjustment

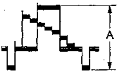
Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: no signal • PB mode	Q184-collector/HK-4 (F-4) 3579545 ± 30 Hz	⊘ CV601/HK-4 (B-3)



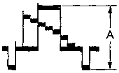
8-3-6. PB C Comb Filter Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Supply the composite color-bar signal (Y=0.5 Vp-p, burst=0.143 Vp-p) to CN911-4/HK-4 (H-2). • E-E mode	IC501-26/HK-4 (B-2)  Minimize residual chroma component at RED portion (30 mVp-p or less)	⊘ RV502/HK-4 (A-3) ⊘ LV501/HK-4 (B-3)

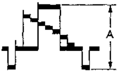
8-3-7. SYNC AGC Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • E-E mode	TP402/HK-4 (E-3)  A=0.50 ± 0.02 Vp-p	⊘ RV302/HK-4 (D-1)

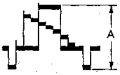
8-3-8. AGC Output Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • E-E mode	TP301/HK-4 (B-3)  A=0.50 ± 0.02 Vp-p	⊘ RV405/HK-4 (D-3)

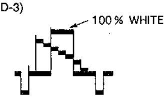
8-3-9. Video Output Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • E-E mode	TP303/HK-4 (E-1)  A=1.00 ± 0.05 Vp-p	⊘ RV301/HK-4 (E-1)

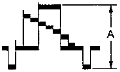
8-3-10. STD Mode PB Y Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the color-bar signal portion of the alignment tape WR5-5NSP.	TP302/HK-4 (D-3)  A=0.50 ± 0.02 Vp-p	⊘ RV304/HK-4 (E-2)

8-3-11. PB De-emphasis Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the color-bar signal portion of the alignment tape WR5-5NSP.	TP302/HK-4 (D-3)  100% white level=makes flat	⊘ RV304/HK-4 (E-2)

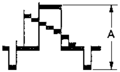
8-3-12. Hi8 Mode PB Y Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the color-bar signal portion of the alignment tape WR5-8NSE.	TP302/HK-4 (D-3)  A=0.50 ± 0.02 Vp-p	⊘ RV305/HK-4 (E-2)

8-3-13. STD Mode Y FM Carrier Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: no signal • Use a P6-MP series tape. • E-E mode	IC401-14/HK-4 (D-2) 4.40 ± 0.02 MHz	⊘ RV402/HK-4 (D-2)

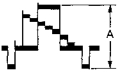
8-3-14. STD Mode Y FM Deviation Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • Preform the self-recording/play back with a P6-MP series tape.	TP302/HK-4 (D-3)  A=0.50 ± 0.02 Vp-p • Repeat recording and play back several times until the level meets the specification. Adjust the RV403 during recording.	⊘ RV403/HK-4 (D-2) When turning in the clockwise direction, the level decreases.

8-3-15. Hi8 Mode Y FM Carrier Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: no signal • E-E mode	TP401/HK-4 (C-3) 6.00 ± 0.02 MHz	⊘RV401/HK-4 (D-2)

8-3-16. Hi8 Mode Y FM Deviation Adjustment

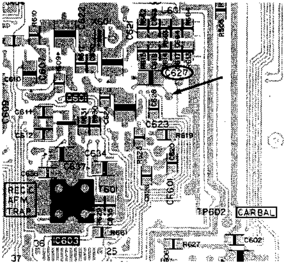
Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • Preform the self-recording/play back with a Hi8 ME tape.	TP302/HK-4 (D-3)  A=0.50 ± 0.02 Vp-p • Repeat recording and play back several times until the level meets the specification. Adjust RV404 during recording.	⊘RV404/HK-4 (D-2) When turning in the clockwise direction, the level decreases.

8-3-17. $378f_H$ VCO Adjustment

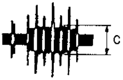
Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • E-E mode • Solder the jumper wire to the position described below. Connect the voltmeter at the end of jumper wire. • After adjustment, remove the jumper wire.	IC602-26/HK-4 (B-4) 3.0 ± 0.1Vdc	⊘ RV601/HK-4 (A-4)

Note: It is difficult to connect to 26 pin of IC602 because it is under the oscillator.
The substitutive position is described below.

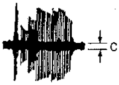
HK-4 Board (A-4)


R610
X601
L601
C621
R508
C627
C610
C609
C611
C612
C628
C623
R619
C634
C637
C636
REC C
AFM
TRAP
T601
R523
CF601
TP602
CAR BAL
R661
IC603
36
37
25
R627
C602

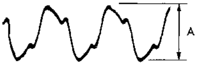
8-3-18. Chroma Emphasis f_0 Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Connect pin 47 of IC602 to TP902/HK-4 (F-5) via 10 k ohm resistor. • Connect pin 47 of IC602 to ground via 10 k ohm resistor. • VIDEO IN: color-bar signal • E-E mode • After adjustment, remove the resistor.	IC601-11/HK-4 (A-5)  C (chroma component)=minimum	⊘ T602/HK-4 (A-6)

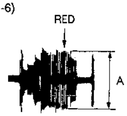
8-3-19. Carrier Balance Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the color-bar signal portion of the alignment tape WR5-8NSE.	TP602/HK-4 (A-5)  A (4.32 MHz component)=minimum	⊘RV602/HK-4 (A-5)

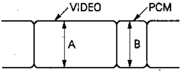
8-3-20. REC Y RF Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: no signal • Use a P6-MP tape • E-E mode	TP201/HK-4 (D-6)  A=0.62 ± 0.02 Vp-p	⊘RV202/HK-4 (D-5)

8-3-21. REC C RF Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Perform following connections. Q211-emitter (D-5) ↔ TP902/HK-4 (F-5) CN101-3 (C-6) ↔ ground Q608-emitter (B-6) ↔ ground • VIDEO IN: color-bar signal • E-E mode • After adjustment, remove the jumper wires.	TP201/HK-4 (D-6)  A=100 ± 10m Vp-p	⊘RV201/HK-4 (C-5)

8-3-22. SP REC Current Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN : 50% white signal • Use a Hi8 ME tape • REC mode	TP001/FR-40 (A-1)  A (VIDEO)=180 ± 10 mV B (PCM)=180 ± 10 mV	VIDEO ⊘ RV001/RP-73 (SP) PCM ⊘ RV002/RP-73 (SP) Trigger: CN004-2/FR-40

Note: LP REC CURRENT ADJUSTMENT (RV001, RV002) is unnecessory.

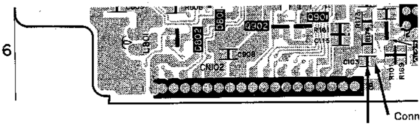
8-3-23. DOC Level Adjustment

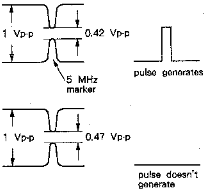
Step 1.

Note: Remove C103 on the HK-4 Board (F-6) for this adjustment. Use the sweep generator and put the marker in the 5 MHz portion. Adjust the level of maker to the level described below steps with variable volume of the sweep generator. After adjustment, solder the chip capacitor (0.047 μF) to C103 on the HK-4 Board (F-6).
Be sure to use the new capacitor. (1-163-035-00)

Connect the output of sweep generator to the point of HK-4 Board after removing C103 as described below.

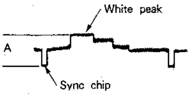
HK-4 soldering side


6
L801
D802
D801
Q302
Q901
R161
C115
C908
CN102
C103
R173
R101
R169
1
Connect the sweep generator at this point
C103

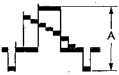
Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal. • Adjust the marker level of the sweep generator to meet the specification. • E-E mode	IC501-17/HK-4 (B-2)  1 Vp-p 0.42 Vp-p 5 MHz marker pulse generates 1 Vp-p 0.47 Vp-p pulse doesn't generate	⊘ RV101/HK-4 (F-5)

- After adjustment, remove the sweep generator and solder chip capacitor to C103.

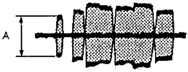
Step 2.
Use the oscilloscope in this adjustment.

Machine condition for adjustment	Specifications	Adjustments
• Supply the composite color-bar signal (Y=0.5 Vp-p, Burst=0.143 Vp-p, chroma OFF) to CN911-4 pin on the HK-4 Board (H-2).	IC501-12/HK-14 (B-2)  White peak A Sync chip A=0 ± 15 mVp-p	⊘ RV501/HK-4 (A-2)

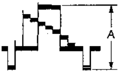
8-3-24. E-E Y Signal Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • E-E mode	TP701/HK-4 (H-2)  A=1.00 ± 0.05 Vp-p	⊘ RV702/HK-4 (H-2)

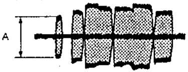
8-3-25. E-E C Signal Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • E-E mode	TP801/HK-4 (H-4)  A=286 ± 10 mVp-p	⊘ RV802/HK-4 (H-5)

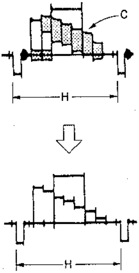
8-3-26. JOG Direct Y Signal Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the color-bar signal portion of the alignment tape WR5-8NSE. • PAUSE mode	TP701/HK-4 (H-2)  A=1.00 ± 0.05 Vp-p	⊘ RV701/HK-4 (G-2)

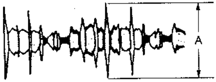
8-3-27. JOG Direct C Signal Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the color-bar signal portion of the alignment tape WR5-8NSE. • PAUSE mode	TP801/HK-4 (H-4)  A=286 ± 10mV	⊘ RV801/HK-4 (G-5)

8-3-28. Chroma Cancel (1H) Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color bar signal • E-E mode	TP203/IF-20 (A-2)  C (residual chroma component)=minimum Level=less than 25 mvp-p	⊘ RV201/IF-20 (B-1) ⊘ LV201/IF-20 (B-1)

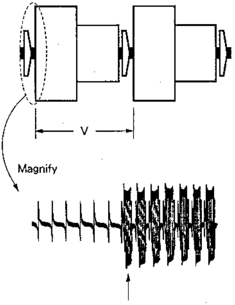
8-3-29. Chroma Cancel (2H) Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color bar signal • E-E mode	TP207/IF-20 (C-2)  A=less than 20 mVp-p	⊘ RV204/IF-20 (C-2) ⊘ LV202/IF-20 (C-1)

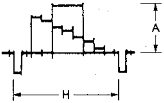
8-3-30. DC Offset Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: no signal • E-E mode	+: TP208/IF-20 (C-3) –: TP209/IF-20 (C-3) 100 ± 10 mVp-p	⊘ RV205/IF-20 (C-3)

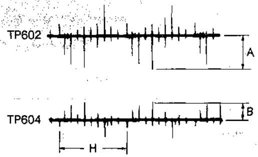
8-3-31. C Comb Cancel Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • E-E mode	TP206/IF-20 (B-6)  Adjust this level and level at right side equally.	⊘ RV203/IF-20 (B-2)

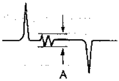
8-3-32. Ys Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • E-E mode	TP204/IF-20 (A-3)  A=0.5 ± 0.02 Vp-p	⊘ RV202/IF-20 (A-3)

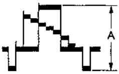
8-3-33. Noise Cancel +6 dB Amplifier Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the color-bar signal portion of alignment tape WR5-8NSE.	CH-1: TP602/IF-20 (D-5) CH-2: TP604/IF-20 (D-4)  Peak level B × 2=Peak level A	⊘ RV601/IF-20 (D-5)

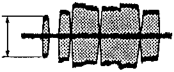
8-3-34. Limiter Cancel Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the color-bar signal portion of alignment tape WR5-8NSE.	TP603/IF-20 (E-5)  A (burst portion)=minimum	⊘ RV602/IF-20 (E-4)

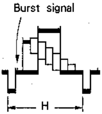
8-3-35. Y Output Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the color bar signal portion of the alignment tape WR5-8NSE.	TP651/DI-11 (K-4)  A=1.0 ± 0.1 Vp-p	⊘ RV651/DI-11 (K-4)

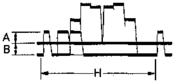
8-3-36. CNR Chroma Output Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the color bar signal portion of the alignment tape WR5-8NSE.	TP652/DI-11 (J-3)  A=0.286 ± 0.01 Vp-p	⊘ RV652/DI-11 (J-4)

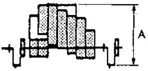
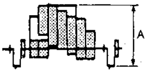
8-3-37. Yx Filter DIP Point Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Disconnect CN901/IF-20 (C-5) and input the color-bar signal of 50 mVp-p burst at pin 1 of CN901. • PLAY mode • Turn RV706/IF-20 (G-5) fully counterclockwise.	TP705/IF-20 (G-5)  Turn RV702 and RV703 alternately and minimize the burst level.	⊘ RV702/IF-20 (H-5) ⊘ RV703/IF-20 (I-5)

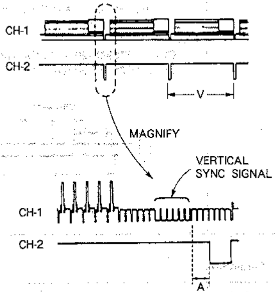
8-3-38. Yx Filter C Control Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • E-E mode • Set CH-1 and CH-2 of oscilloscope ranges equally.	**Step 1** CH-1: TP709/IF-20 (G-5) (AC range) CH-2: TP709/IF-20 (G-5) (AC range) Align the CH-1 and CH-2 waveforms. **Step 2** CH-1: TP709/IF-20 (G-5) (DC range) CH-2: TP711/IF-20 (G-5) (DC range)  4:6 ≦ A:B ≦ 6:4	⊘ RV706/IF-20 (G-5)

8-3-39. Video Output Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • E-E mode	TP706/IF-20 (I-4)  A=1.0 ± 0.05 Vp-p B=0.286 ± 0.02 Vp-p	⊘ RV704/IF-20 (I-5) ⊘ RV705/IF-20 (I-5)
	TP712/IF-20 (J-4)  A=1.0 ± 0.05 Vp-p B=0.286 ± 0.02 Vp-p	⊘ RV707/IF-20 (J-4) ⊘ RV708/IF-20 (J-5)

8-3-40. REF V Adjustment

Machine condition for adjustment	Specifications	Adjustments
• VIDEO IN: color-bar signal • E-E mode	CH-1: TP204/IF-20 (A-3) CH-2: IC903 PIN 7/IF-20 (D-2)  CH-1 CH-2 V MAGNIFY VERTICAL SYNC SIGNAL CH-1 CH-2 A A=134.7 ± 5.0 μsec	⊘ RV901/IF-20 (B-5)

8-3-41. Picture Splitting Adjustment

Machine condition for adjustment	Specifications	Adjustments
	Set RV802 and RV803 on the MD-23 board to the mechanical center position.	⊘ RV802/MD-23 (A-2) ⊘ RV803/MD-23 (A-2)

8-4. AUDIO SIGNAL SYSTEM ALIGNMENT

8-4-1. Equipment Required

- Oscilloscope
- Frequency counter
- Audio signal generator
- Audio level meter
- Digital voltmeter
- Alignment tape

Name (Part No.)	REC mode	Tape Type	Tape Speed	Contents	
				Video Area	PCM Area
SP operation check WR5-8NSE (8-967-995-43)	Hi8	ME	SP	VIDEO SIGNAL Color-bar 4 min. Monoscope 4 min. AUDIO SIGNAL (AFM) 400 Hz 60% mod.	AUDIO SIGNAL (PCM) 400 Hz 20 min.
LP operation check WR5-8NLE (8-967-995-52)	Hi8	ME	LP	VIDEO SIGNAL Color-bar 4 min. Monoscope 4 min. AUDIO SIGNAL (AFM) 400 Hz 60% mod.	AUDIO SIGNAL (PCM) 400 Hz 20 min.

8-4-2. PCM Master Clock Adjustment

Note: Before adjustment, remove the PA-27 board.

Machine condition for adjustment	Specifications	Adjustments
• Connect pin 14 of IC853/PD-19 (A-1) and pin 11 of CN852/PD-19 (A-2) with jumper wire. • E-E mode • After the adjustment, remove jumper wire.	IC853-8/PD-19 (A-1) 11.45 ± 0.01 MHz	⊘ RV851/PD-19 (A-2)

8-4-3. PCM Playback VCO Free-Frequency Adjustment

Note: Before adjustment, remove the PA-27 board.

Machine condition for adjustment	Specifications	Adjustments
• Connect pin 9 of CN851/PD-19 (B-1) and pin 11 of CN852/PD-19 (C-3) with jumper wire. • Connect pins 7 and 8 of CN852/PD-19 (C-3) with jumper wire. • E-E mode • After the adjustment, remove jumper wires.	IC854-8/PD-19 (A-2) 11.58 ± 0.05 MHz	⊘ RV854/PD-19 (A-2)

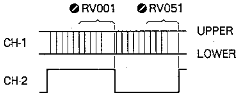
8-4-4. D/A Converter Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the Audio 400 Hz portion of the alignment tape WR5-8NSE.	CN001-16/PA-27 (A-2) –4.0 ± 0.2 dBs	⊘ RV032/PA-27 (A-1)

8-4-5. NR Decode Level Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Play back the Audio 400 Hz portion of the alignment tape WR5-8NSE.	CN001-20/PA-27 (A-3) –14.0 ± 0.5 dBs • If adjustment value doesn't meet the specification, change the value of resistors as follows and perform adjustment again. R062 12k→13k R012 12k→13k	⊘ RV031/PA-27 (C-1)

8-4-6. A/D Converter Offset Adjustment

Machine condition for adjustment	Specifications	Adjustments
• Connect pin 8 of CN001/PA-27 (A-2) to pin 17 of CN001/PA-27 (A-2) with jumper wire. • Connect pins 15 and 18 of CN001 with jumper wire. • Connect pins 4 and 5 of CN001 with jumper wire. • REC mode (no signal input) • After adjustment, remove jumper wires.	CH-1: CN001-11/PA-27 (A-2) CH-2: CN001-9/PA-27 (A-2)  Adjust upper and lower brightnesses for the same.	L-CH ⊘ RV001/PA-27 (B-2) R-CH ⊘ RV051/PA-27 (B-1)

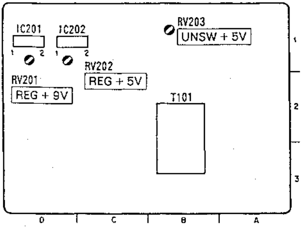
8-4-7. PCM REC Level Adjustment

Note: This adjustment should be performed after completion of 9-4. NR DECODED LEVEL ADJUSTMENT.

Machine condition for adjustment	Specifications	Adjustments
• AUDIO LINE IN: 400 Hz/–10 dB • Preform the self-recording/play back with a Hi8 ME tape.	L-CH: CN001-20/PA-27 (A-3) –13.5 ± 0.1 dB	L-CH ⊘ RV002/PA-27 (B-3)
	R-CH: CN001-1/PA-27 (A-1) –13.5 ± 0.1 dB	R-CH ⊘ RV052/PA-27 (B-1)

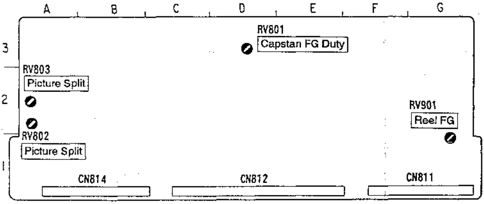
8-5. ADJUSTMENT RELATED PARTS ARRANGEMENT DIAGRAMS

RV's on the Power Supply Block Location (Component Side)



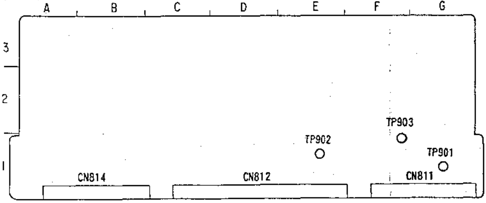
IC201
IC202
1
2
1
2
RV203
UNSW + 5V
RV202
REG + 5V
RV201
REG + 9V
T101
1
2
3
D
C
B
A

RV's on the MD-23 Board Location (Component Side)



A
B
C
D
E
F
G
3
2
1
RV801
Capstan FG Duty
RV803
Picture Split
RV802
Picture Split
RV901
Reel FG
CN814
CN812
CN811

TP's on the MD-23 Board Location (Component Side)

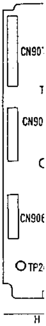


A
B
C
D
E
F
G
3
2
1
TP903
TP902
TP901
CN814
CN812
CN811

TP's o (Comp

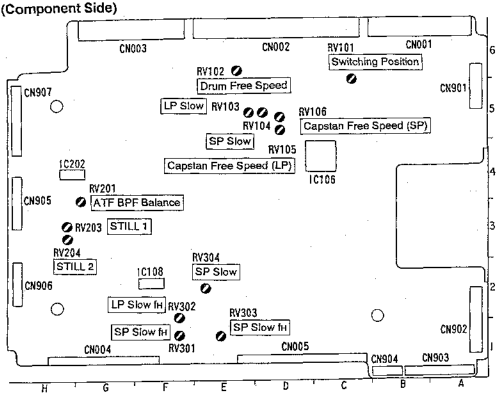
CN9
CN90
CN90
H

RV's c (Comp

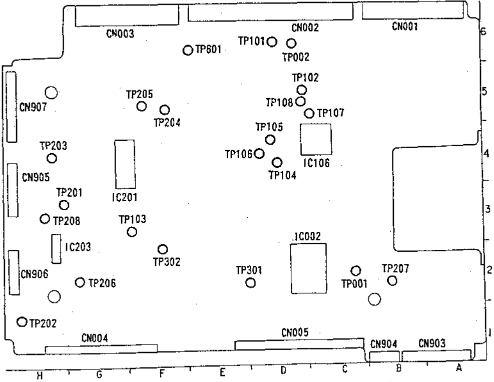


CN90
T
CN90
CN90€
TP2
H

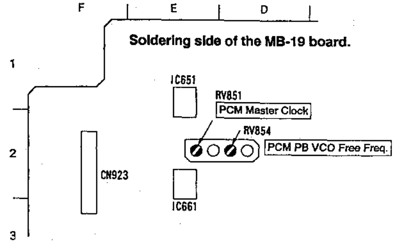
TP's on the SE-10 Board Location (Component Side)


CN003
CN002
RV101
CN001
Switching Position
RV102
Drum Free Speed
CN907
LP Slow
RV103
RV106
RV104
Capstan Free Speed (SP)
CN901
SP Slow
RV105
IC202
Capstan Free Speed (LP)
IC106
RV201
CN905
ATF BPF Balance
RV203
STILL 1
RV204
STILL 2
RV304
IC108
SP Slow
CN906
LP Slow f_H
RV302
RV303
SP Slow f_H
SP Slow f_H
CN902
CN004
RV301
CN005
CN904
CN903
6
5
4
3
2
1
H
G
F
E
D
C
B
A

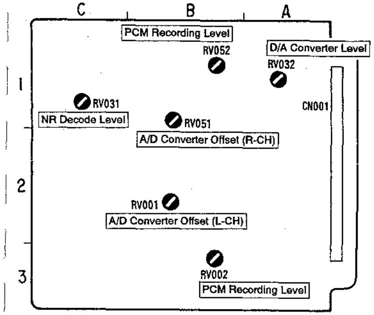
RV's on the SE-10 Board Location (Component Side)


CN003
CN002
CN001
TP601
TP101
TP002
TP102
CN907
TP205
TP204
TP108
TP107
TP105
TP203
TP106
IC106
TP104
CN905
TP201
IC201
TP208
TP103
IC002
IC203
TP302
CN906
TP301
TP001
TP207
TP206
TP202
CN004
CN005
CN904
CN903
6
5
4
3
2
1
H
G
F
E
D
C
B
A

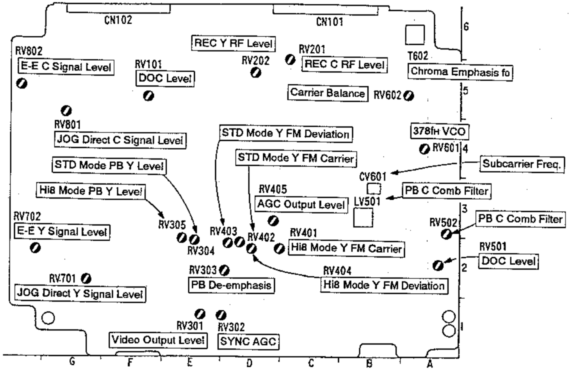
RV's on the PD-19 Board Location


F
E
D
1
2
3
Soldering side of the MB-19 board.
IC651
RV851
PCM Master Clock
RV854
PCM PB VCO Free Freq.
CN923
IC661

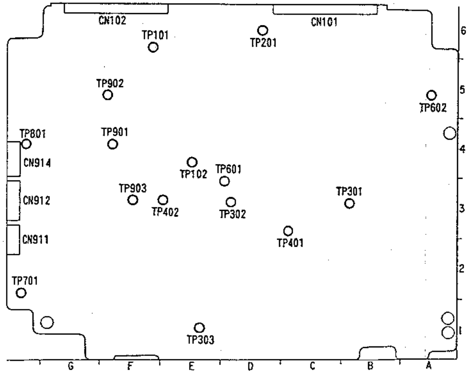
RV's on the PA-27 Board Location (Component Side)


C
B
A
1
2
3
PCM Recording Level
RV052
D/A Converter Level
RV032
RV031
NR Decode Level
RV051
A/D Converter Offset (R-CH)
CN001
RV001
A/D Converter Offset (L-CH)
RV002
PCM Recording Level

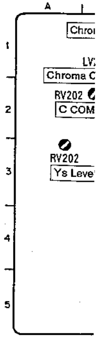
RV's on the HK-4 Board Location
(Component Side)


CN102
CN101
6
5
4
3
2
1
REC Y RF Level
RV201
RV202
REC C RF Level
T602
Chroma Emphasis fo
RV802
E-E C Signal Level
RV101
DOC Level
Carrier Balance
RV602
RV801
JOG Direct C Signal Level
STD Mode Y FM Deviation
378fH VCO
RV601
Subcarrier Freq.
STD Mode PB Y Level
STD Mode Y FM Carrier
CV601
Hi8 Mode PB Y Level
RV405
AGC Output Level
LV501
PB C Comb Filter
RV702
E-E Y Signal Level
RV305
RV403
RV402
RV401
RV502
PB C Comb Filter
RV304
Hi8 Mode Y FM Carrier
RV501
DOC Level
RV701
RV303
RV404
JOG Direct Y Signal Level
PB De-emphasis
Hi8 Mode Y FM Deviation
RV301
RV302
Video Output Level
SYNC AGC
G
F
E
D
C
B
A

TP's on the HK-4 Board Location
(Component Side)


CN102
CN101
TP101
TP201
6
TP902
TP602
5
TP801
TP901
CN914
4
TP102
TP601
TP903
TP301
CN912
TP402
TP302
3
CN911
TP401
2
TP701
TP303
1
G
F
E
D
C
B
A

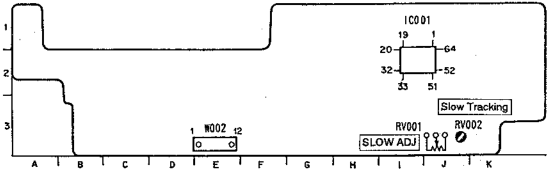
RV's on the IF-
(Component S


A
1
Chro
LV
Chroma C
2
RV202
C COM
3
RV202
Ys Leve
4
5

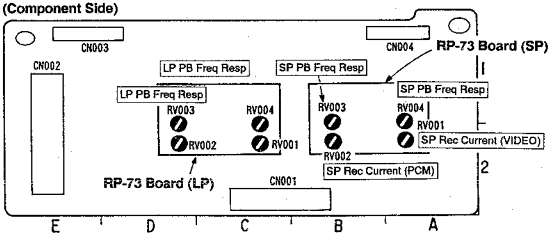
TP's on the IF-
(Component Sl

A
1
T
TP203
2
TP204
TF
3
4
5

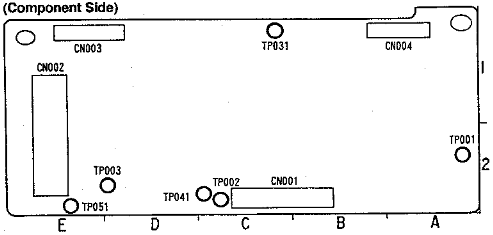
RV's on the FB-169 Board Location (Component Side)


IC001
19
1
20
64
32
52
33
51
Slow Tracking
RV001
RV002
SLOW ADJ
1
W002
12
1
2
3
A
B
C
D
E
F
G
H
I
J
K

RV's on the FR-40 Board Location (Component Side)


CN003
CN004
RP-73 Board (SP)
CN002
LP PB Freq Resp
SP PB Freq Resp
LP PB Freq Resp
SP PB Freq Resp
RV003
RV004
RV003
RV004
RV001
RV002
RV001
SP Rec Current (VIDEO)
RV002
SP Rec Current (PCM)
RP-73 Board (LP)
CN001
1
2
E
D
C
B
A

TP's on the FR-40 Board Location (Component Side)


CN003
TP031
CN004
CN002
1
TP001
2
TP003
TP002
CN001
TP041
TP051
E
D
C
B
A